

Emily Elizabeth ('Beth') Devine
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bdevine@uw.edu

<https://sop.washington.edu/people/beth-devine/>

<https://www.bethdevineheor.com/>

LinkedIn: <https://www.linkedin.com/in/beth-devine/>

ACADEMIC POSITIONS

Current Primary Appointment

Centre for Reviews and Dissemination, University of York,, UK

2026 (September) – Head of Department and Professor of Evidence Synthesis

Concurrent Appointment

The Comparative Health Outcomes, Policy, and Economics (CHOICE) Institute

School of Pharmacy, University of Washington, Seattle, WA, USA

2023 - Professor Emeritus

Past Primary Appointments

The CHOICE Institute

Formerly Pharmaceutical Outcomes Research and Policy Program (PORPP)

School of Pharmacy, University of Washington

2021 - 2023 Shirley and Herb Bridge Endowed Professor for Women in Pharmacy

2018 - 2023 Professor

2015 - 2018 Associate Professor with tenure

2011 - 2015 Associate Professor, tenure eligible

2007 - 2011 Research Associate Professor

2001 - 2007 Research Assistant Professor

External Academic Appointments

2024 - 2026 Visiting Professor, Population Health Sciences, Bristol Medical School, University of Bristol, UK

2022 - 2024 Honorary Professor, Epidemiology, Public Health & Health Services, School of Medicine, University of Murcia, Spain

2021 – 2022 Visiting Professor, Epidemiology, Public Health & Health Services, School of Medicine, University of Murcia, Spain

Adjunct Academic Appointments

University of Washington

2018-2024 Member, Plain Center for Aging, School of Pharmacy

2016-2024 Member, Institute for Public Health Genetics, School of Public Health

2012- 2023 Adjunct Professor, Department of Health-Systems and Population Health (Health Services), School of Public Health

2009 - 2023 Adjunct Professor, Department of Biomedical Informatics & Medical Education, School of Medicine

2012-2019 Adjunct Associate Professor/Professor, Department of Surgery, School of Medicine

Administrative Academic Appointments

University of Washington, School of Pharmacy

2022 - 2024 Associate Director, The CHOICE Institute

2016 - 2022 Director, Graduate Program, The CHOICE Institute

2015 - 2016 Associate Director, Graduate Program, PORPP

2015 - 2022 Associate Director, Agency for Healthcare Research and Quality (AHRQ) T-32 Training Grant
in Health Services and Pharmaceutical Outcomes

2014 - 2025 Assistant Director, Pacific Northwest Evidence-based Practice Center (AHRQ-funded)

2012 - 2023 Director, UW CHOICE Allergan Fellowship Program

2012 - 2019 Director, UW Graduate Certificate in Comparative Effectiveness Research

2001 - 2006 Associate Director, PORPP

EDUCATION AND TRAINING

2026 Masterclass: Cost-effectiveness Thresholds, Office of Health Economics, London, UK (April)

2025 MultiNMA Short Course, University of Bristol, UK (November)

2024 – 2025 MSc, Medical Statistics and Health Data Science, Department of Population Health, School of Medicine,
University of Bristol, UK (Class: Merit)

*Dissertation: The impact on results when causal inference studies and bias-adjustment
procedures are incorporated into network meta-analyses of randomized controlled trials”*

2005 - 2008 PhD, Health Services Research, Department of Health Services, School of Public Health, UW, Seattle WA, USA
Area of emphasis: Evaluation Sciences and Biostatistics
Dissertation: *"Evaluating the impact of an ambulatory computerized provider order entry system on outcomes in a community-based multispecialty health system"*

1999 - 2001 Post-doctoral Fellowship in Pharmacoeconomics and Outcomes Research, UW, Seattle, WA, USA
and Roche Global Pharmacoeconomics, Palo Alto, CA

1997 - 1999 Master in Business Administration, Masagung Graduate School of Business and Management,
University of San Francisco, San Francisco, CA, USA
Thesis: *"UCSF Pharmacy Faculty Practice Consortium: A plan for optimizing medication use in physician group practices"*

1978 - 1979 Clinical Pharmacy Residency, Veterans Administration Health Care System, Palo Alto, CA

1975 - 1978 Doctor of Pharmacy degree, University of the Pacific, Stockton, CA

1973 - 1975 Pre-pharmacy, University of the Pacific, Stockton, CA
Music minor, Conservatory of Music, University of the Pacific, Stockton, CA

ACADEMIC AND PROFESSIONAL EXPERIENCE:

During the first phase of my career (1978-1999), I was an advanced practice (i.e. prescribing) clinical pharmacist in the acute care setting of first community-based, then academic medical centers. While president of the California Society of Health-System Pharmacists, I co-lead a statewide initiative that expanded the already existing pharmacy scope of practice law for hospitals to include any site where clinical data were available. While at the University of California San Francisco (UCSF) (1990-1999), I worked closely with the medical staff in clinical pharmacy administrative roles – leading Pharmacy & Therapeutics, Medication Safety, and Quality Improvement Committees. At the level of the medical center, I served on the Quality Improvement Executive (Risk Management) Committee, Joint Commission Preparedness Committee, and represented the issue of pharmacist credentialing on the Medical Staff Credentialing Committee. Details about these past clinical and clinical administrative positions are not reflected in this CV and are available separately.

Previous Academic Positions Held

1997 – 2001 Associate Clinical Professor, Department of Clinical Pharmacy, UCSF, San Francisco, CA, USA
1991 – 1997 Assistant Clinical Professor, Department of Clinical Pharmacy, UCSF, San Francisco, CA, USA

Previous Administrative Positions Held

1995 – 1999 Assistant Director, Pharmacoeconomics and Clinical Outcomes, Department of Pharmaceutical Services, UCSF
1994 – 1995 Assistant Director and Site Manager, Department of Pharmaceutical Services, Mount Zion Campus, UCSF
1993 – 1994 Clinical Coordinator, Department of Pharmaceutical Services, Mount Zion Campus, UCSF
1987 – 1990 Coordinator of Quality Assurance and Special Projects, Sierra Vista Regional Medical Center, San Luis Obispo, CA
1985 – 1987 Assistant Director of Pharmacy, Mission Oaks Hospital, Los Gatos, CA
1984 – 1987 Regional Clinical Coordinator and Quality Assurance Analyst, HPI-Health Care Services, Los Gatos, CA

Clinical Positions Held

1993 – 1994 Clinical Pharmacist, Adult Internal Medicine Service, Mount Zion Campus, UCSF
1990 – 1993 Clinical Pharmacist with prescribing privileges, Neurosurgery Service, Parnassus Campus, UCSF
1987 – 1990 Clinical Pharmacist with prescribing privileges, Sierra Vista Regional Medical Center, San Luis Obispo, CA
1979 – 1985 Clinical Pharmacist, Mission Oaks Hospital, Los Gatos, CA
1979 – 1980 Consultant Pharmacist (part-time), Convalescent Pharmaceutical Services, Inc., Mountain View, CA
1976 – 1978 Pharmacy Intern, El Camino Hospital Pharmacy, Mountain View, CA;
Pharmacy Intern, Kahn's Corner Pharmacy, Los Altos, CA

HONORS AND AWARDS

*asterisk indicates my role was a mentor

2026 – 2031 Global Talent visa-holder, UK Visas and Immigration

2025 – 2028 Presidential officer, International Society for Pharmacoeconomics and Outcomes Research (ISPOR) – The Professional Society for Health Economics and Outcomes Research

2023 – 2024 Guest Editor, Theme issues, "State of the Science of Pharmacogenomics Implementation in Healthcare Systems and Communities". *Frontiers in Pharmacology: Pharmacogenetics and Pharmacogenomics*.

*Publication received distinction as in top 5 of JMCP articles viewed and cited in 2021. Lee W, Dayer T, Jiao B, Carlson J, **Devine B**, Veenstra DL. The use of real-world evidence in economic assessments of pharmaceuticals in the US. *J Manag Care Spec Pharm* 2021 Feb;27(2):223-239. doi: 10.18553/jmcp.2021.27.2.223.

Publication received distinction as Editor's Choice: Saldarriaga EM, Hauber B, Carlson JJ, Barthold D, Veenstra DL, **Devine, B**. Assessing payers' preferences for real world evidence: A discrete choice experiment. *Value Health* 2022;25:443-450.

Publication received distinction as Editor's Choice: **Devine B.** Assessing the value of remote patient monitoring solutions in addressing challenges in patient care. *Value Health*. 2022;25:887-889.

Recognized by the UW CoMotion Innovation Hub as one of six UW Women Research Innovators, for development of the REAdi (Real-World Evidence Assessments and Needs Guidance) Tool: A Framework for Evaluating Real-World Evidence., March 17, 2022. Available from: <https://comotion.uw.edu/blog/celebrating-womens-history-month-march-2022/>

- 2023 Publication featured in a Special Issue: Original work by Women: Poehler D,...**Devine B.** A multi-criteria decision analysis to compare patient and provider preferences for lower limb amputations. *Ann Vasc Surg*. 2023 May 30:S0890-5096(23)00284-4. doi: 10.1016/j.avsg.2023.05.026.
- 2021 Fulbright US Scholar, Epidemiology, Public Health & Health Services, School of Medicine, University of Murcia, Spain
- Alumni Legend, University of Washington School of Pharmacy
- Nominated for the UW-wide Marsha L. Landolt Distinguished Graduate Mentor of the Year Award
- Recipient of the HEOR Excellence Application Award, ISPOR, for the paper titled, "Online tools to synthesize real-world evidence of comparative effectiveness research to enhance formulary decision-making". (Chen S, Yun S, Graf J, Beal B, Bansal A, Carlson J, Basu A, **Devine B.** The REAdi (Real-World Evidence Assessments and Needs Guidance) Tool: A Framework for Evaluating Real-World Evidence. *J Manag Care Spec Pharm*. 2021 Jan;27(1):95-104). doi: 10.18553/jmcp.2021.27.1.095.
- 2021 - 2024 Elected member, ISPOR Board of Directors
- 2021 - present Associate Editor, *Value in Health*
- 2021 Guest Editor, Theme section, "Remote Patient Monitoring", *Value in Health*
- 2019 Nominated for Faculty Mentor of the Year Award, UW School of Pharmacy (June)
- 2018 Publication mentioned as a 'Notable Event' at the "Year in Review" presentation, AMIA Clinical Research Informatics (CRI) Meeting, San Francisco, CA (March). **Devine EB**, Hersh W, Totten A, Eden K, Gorman P, Kassakian S, Woods S, Daeges M, Pappas M, McDonagh M. Use of health information exchange. *eGEMs* (Wash DC). 2017 Dec 7;5(1):27. doi: 10.5334/egems.249.
- Invited participant (selected by peer review process), NIH Collaboratory enhanced Pragmatic Clinical Trials (ePCT) Workshop, Duke University, (February)
- 2017 - 2023 Member by competitive appointment, Academy Health Methods & Data Council.
- 2017 Publication nominated for the Marco Ramoni Distinguished Paper Award, American Medical Informatics Association (AMIA) Joint Summits on Translational Science. The Marco Ramoni award recognizes the paper that best exemplifies the spirit and scholarship of Marco Ramoni in applying informatics methods to the elucidation of basic molecular biology processes that are relevant to the conquest of human disease. Chin, **Devine** (co-primary authors), et al. Characterizing the Strength of Evidence in FDA Labels for Pharmacogenomic Biomarker-Guided Medication Use. *AMIA Jt Summits Transl Sci Proc*. 2017 Jul 26;2017:30-39. eCollection 2017.
- *Publication one of the 10 top cited papers in this journal.*Overby CL, Tarczy-Hornoch P, Kalet IJ, Thummel KE, Smith JW, Del Fiore G, Fenstermacher D, **Devine EB.** Developing a prototype system for integrating pharmacogenomics findings into clinical practice. *J Pers Med* 2012;2:241-56 PMID: 23741623
- Guest editor, Concordium 2016 Special Issue Papers in: *eGEMs; Generating Evidence & Methods to improve patient outcomes*. *eGEMs* (Wash DC). 2017 Apr 20;5(2):9. doi: 10.13063/2327-9214.1306.
- 2016 Publication recognized with press release from *JAMA Surgery*: **Devine EB**, Alfonso-Cristancho R, Devlin A, Yanez ND, Edwards TC, Patrick DL, Armstrong CAL, Devlin A, Symons RG, Meissner MH, Thomason EL, Lavalley DC, Kessler LG, Flum DR, and CERTAIN Collaborative. Patient-Reported Outcomes after Medical versus Revascularization Interventions for Intermittent Leg Claudication. *JAMA Surg* Published online August 17, 2016. doi:10.1001/jamasurg.2016.2024

- Book of the Year designated by the Health Information Management Systems Society (HIMSS). *Health Information Exchange (HIE), Navigating and Managing a Network of Health Information Systems*. Dixon B, ed. Hersh WR, Totten AM, Eden K, **Devine B**, Gorman P, Kassakian SZ, Woods SS, Daeges M, Pappas M, McDonagh M. Part IV: The Value of HIE, Chapter 14 The Evidence Base for HIE. Elsevier, 2016. Oxford, UK: Elsevier; 2016. pp.213-229.
- 2014 Publication selected as one of the top 100 in the "Informatics Year in Review" Presentation, American Medical Informatics Association 2014 Annual Symposium (November). **Devine EB**, Overby CO, Lee CJ, Abernethy N, Tarczy-Hornoch P A Usability Evaluation of Pharmacogenomic Clinical Decision Support Aids in a Computerized Provider Order Entry System. *Int J Med Inform*. 2014 Jul;83(7):473-83. DOI: 10.1016/j.ijmedinf.2014.04.008
- Nominated for Institute of Medicine (now National Academies of Medicine) Anniversary Pharmacy Fellowship
- Publication recognized with press release from ISPOR: Forrester S, Hepp Z, Roth J, Wirtz HS, **Devine EB**. Cost-effectiveness of a computerized provider order entry system in improving medication safety in ambulatory care. *Value Health* 2014. NIHMS ID: NIHMS 567912
- *Finalist for Best Poster Award, Student Category. Yep TD, **Devine EB**. A cost-utility analysis of CYP2D6 pharmacogenetic guided dosing versus standard dosing of risperidone for treatment of schizophrenia. ISPOR 19th Annual Meeting, Montreal, Quebec Canada
- *Finalist for best Poster Award, Student Category. Forrester, SH, Sullivan SD, **Devine EB**. Estimating the inpatient and outpatient costs of atrial fibrillation and associated adverse events. ISPOR 19th Annual Meeting, Montreal, Quebec Canada
- 2013 *Best Poster Award, New Investigator Category. Hepp Z, Forrester SH, Roth JA, Wirtz HS, **Devine EB**. Cost-effectiveness of a computerized provider order entry system in improving medication safety: A case study in ambulatory care, ISPOR, 18th Annual Meeting, New Orleans, LA
- *Finalist for Best Poster Award, Student Category. Agapova M, **Devine EB**, Bresnahan B, Garrison LP Jr. The Challenges of Quantifying Benefits and Risks Associated with Diagnostic Imaging: A Literature Review. ISPOR, 18th Annual Meeting, New Orleans, LA
- 2013 - present Elected member, Society for Research Synthesis Methodology
- Alternate member, PCORI Advisory Panel on Assessment of Prevention, Diagnosis and Treatment Options
- 2012 *Publication designated as "Editor's Choice"; Manuscript selected for national JAMIA Journal Club Webinar (September): Overby CL, **Devine EB**, Tarczy-Hornoch P, Kalet I. Deriving Rules and Assertions From Pharmacogenomic Knowledge Resources In Support Of Patient Drug Exposure Predictions. *J Am Med Inform Assoc* 2012;19:840-850
- 2010 Recognition for Professional Service to the 2010-2011 Pharmacy Resident Class, UW Medicine (June)
- 2009 Publication designated as "Editor's Choice". **Devine EB**. Hansen RN, Wilson-Norton JL, Lawless NM, Fisk AW, Blough DK, Martin DP, Sullivan SD. The impact of computerized provider order entry on medication errors in a multispecialty group practice. *J Am Med Inform Assoc* 2010;17:78-84. doi: 10.1197/jamia.M3285.
- 2008 Nominee, Distinguished Poster Award, **Devine EB**. Hansen RN, Wilson-Norton JL, Lawless NM, Fisk AW, Blough DK, Martin DP, Sullivan SD. *The impact of computerized provider order entry on medication errors in a multispecialty group practice*. American Medical Informatics Association, 2008 Annual Symposium, Washington DC (November)
- 2006 - 2008 Member by competitive appointment, Student Editorial Advisory Board, *Journal of the American Medical Informatics Association*
- 2005 Editor's Commendation for Excellence in Peer Review of Submitted Manuscripts, Annals of Internal Medicine
- 2003 Publication "#81 in Top 100" downloads from Value in Health Website between 1998-2003. **Devine EB**, Kowdley KV, Veenstra DL, Sullivan SD. *Management strategies for ribavirin-induced hemolytic anemia in the treatment of hepatitis C: clinical and economic implications*. *Value Health*. 2001 Sep-Oct;4(5):376-84.
- 2000 Award for Best New Investigator Podium Presentation, ISPOR 5th Annual Meeting, Crystal City, VA (May)
- Award for Best New Investigator Poster Presentation, ISPOR 5th Annual Meeting, Crystal City, VA (May)

1999 Beta Gamma Sigma National Business Honor Society,
Dean's Honor Roll – all semesters (GPA: 3.94),
Masagung Graduate School of Business and Management, University of San Francisco

1998 Elected Fellow, American Society of Health-System Pharmacists

1997 Pharmacist of the Year Lifetime Achievement Award, California Society of Health-System Pharmacists

Nominee, Milton and Helen Pearl Award for Outstanding Service, UCSF-Mount Zion Medical Center

Inducted into Phi Lambda Sigma, Pharmacy Leadership Society

1996 Elected Fellow, California Society of Health-System Pharmacists

Nominee, Milton and Helen Pearl Award for Outstanding Service, UCSF-Mount Zion Medical Center

1993, '95, '97 UCSF Academic and Professional Staff Outstanding Achievement Award

1990 Pharmacist of the Year, Cuesta Chapter, California Society of Health-System Pharmacists

1989 Toastmaster of the Year Award, Toastmasters Club of San Luis Obispo, CA

1987 Admitted to Albany Medical School, Class of 1991, Albany, NY

Invited Participant, Western Regional Conference on Clinical Pharmacy Practice (The Coto de Caza Conference)

Sales Award, HPI-Health Care Services, Inc., Los Angeles, CA

1978 Dean's Honor Roll, School of Pharmacy, University of the Pacific, Stockton, CA

1973 – 1974 Pacific Wind Ensemble, Honors Band, Conservatory of Music, University of the Pacific, Stockton, CA

1973 Honors at Entrance, University of the Pacific, Stock CA

California Scholarship Federation, Lifetime member

LICENSURE AND CERTIFICATION

1993 - 2015 Board Certified Pharmacotherapist Specialist
1978 - 2019 Licentiate in Pharmacy, State of California; retired license in 2019
1978 - 2020 Licentiate in Pharmacy, State of Nevada, retired license in 2020

RESEARCH

Current Grants and Contracts

Grants Completed

Consortium Site Principal Investigator (Assistant Director), Pacific Northwest *Evidence-based Practice Center (EPC) VI* with Oregon Health & Science University (OHSU), AHRQ, 2019 - 2025

Co-investigator, RFTO #: 88, USPSTF Group B: Systematic review and validation of decision modeling (to be completed by CISNET). 2024-2027, 8% time)

Co-investigator, CHOICE Executive Series in Conveying Knowledge (CHECK): Principles of Data Sciences in HEOR. *Health Technology Fund* projects, UW Corporate Advisory Board, Health Tech Fund, 2022-2024 (donated)

Lead co-investigator, EDGE: *Randomized trial of genomic testing methods for primary care patients: Cost-effectiveness Comparing two Strategies*. PI: Bowen. NIH/National Cancer Institute, 2020-2024 \$376,124) (8.3%/1%)

Consortium Site Principal Investigator (Assistant Director), Pacific Northwest *Evidence-based Practice Center (EPC) VI* with Oregon Health & Science University (OHSU), AHRQ, 2019 -

Co-investigator, RFTO #, USPSTF Group A: *Prostate Cancer Screening Topic Refinement for Systematic Review*. 2023-2024, \$34,118 (5% time)

Co-Investigator, eMERGE IV Northwest: A partnership to evaluate the use of genomic information in the health care of diverse participants. NIH/NHGRI (PI: G. Jarvik) 2020-2024 (8.3%/2%)

Principal Investigator, The REAdi (Real-World Evidence Assessments and Needs Guidance) Tool. University of Washington CoMotion Innovations Gap Fund (6/2022-5/2023) \$50,000 over 12 months (now LATITUDES, with University of Bristol, UK)

Co-investigator, member, Advisory Board (subaward PI: Basu): "Defining Value and Supporting Equity in Sickle Cell Disease (SCD) Project". SickCells proposes to convene a group of stakeholders to drive consensus on important inputs to measure value in SCD. Through this convening, stakeholders will foster new partnerships and facilitate discussion around development of priority elements, methods, and engagement plans for future patient-centered outcomes research (PCOR), comparative effectiveness research (CER), and value assessments. PCORI award. 2022-2023. \$14,000 (2.15%)

Co-Investigator: Cure Sickle Cell: Model for Economic Analysis of Sickle Cell (CureSC: MEASURE). NHLBI (PI: Basu/Roth/Ramsey). 2019-2022. \$869,724 (20%/5%)

Lead co-investigator: Cancer Health Assessments Reaching Many (CHARM). NIH/NHGRI (PI: Goddard: Site PI G. Jarvik). *Estimating the cost of using exome sequencing to diagnose individuals with hereditary cancer syndromes*, 2018-2022, \$82,412 (10%)

Associate Director, *UW Health Services Research Training, AHRQ T32 Training Grant*, PI: Weiner. 2018-2023, \$368,352 (donated)

Co-investigator. Machine Learning in Health Economics and Outcomes Research. *Health Technology Fund* projects, UW Corporate Advisory Board, Health Tech Fund, 2020-2022 (donated)

Co-investigator. *Evolving Our Partnership: The CSER2 Centralized Support Coordinating Center*. NIH/NIGRI, 2U01HG007307-05. (PI: Jarvik). 2017-2021, \$645,000 (Donated)

Key personnel. *U.S Deprescribing Research Network*. (PIs: Steinman/Boyd; Site PI: Gray). NIH/NIA, 2019-2021, \$72,667 (5%)

Lead Co-investigator, *Improving Dysvascular Amputee Outcomes by Enhancing Shared Decision Making*. Veterans Affairs Health Services Research and Development Service (PI: Czerniecki) (2018-2022) Interagency Personnel Agreement (IPA) for 10%

Principal Investigator, *Customizing Value-based Methods to Prioritize Implementation of Pharmacogenomic Clinical Decision Support for Learning Health Systems*, AHRQ 1R21HS026544-01 (2019-2021) 20%, \$299,3011

Lead co-investigator. Payer Demand for Real-World Evidence in Health Economic Information Communication from Industry: Stated and Revealed Preferences. *Health Technology Fund* projects, UW Corporate Advisory Board, Health Tech Fund, 2018-2020 (donated)

Faculty Mentor, *UW Developing Data-Driven Cancer Researchers Training Grant* (NCI T32), PI: Schwartz, 2016-2021 (donated)

Lead co-investigator. REAdi (Real-World Evidence Assessments and Needs Guidance) Tool. *Health Tech Fund Projects*, UW Corporate Advisory Board, 2016-2018 (donated)

Principal Investigator, *Evaluating the Impact of Pharmacogenetic Testing on Clinical Outcomes in a Retirement Community*. UW School of Pharmacy Innovations Award 01/01/18 – 9/15/2020 (\$20,000)

Co-Investigator, *Patient Centered Outcomes Research Partnership, Training for the WWAMI Region*, AHRQ R25, (PI: Kessler), 2014-2019 (20%/10%/5%)

Faculty Mentor, *UW Patient-Centered Outcomes Research Career Development Program*, AHRQ K12 Training Grant 1K12 HS022982-01, (PI: Sullivan) 2014-2019. 3.7% for each of two mentees

Co-investigator, *Patient-Centered Research for Standards of Outcomes in Diagnostic Tests (PROD)*, PCORI ME-1503-29245. (PI: Thompson) PCORI, 2015-2018, \$361,054 (7%)

Consortium Site Principal Investigator (Assistant Director), Pacific Northwest *Evidence-based Practice Center (EPC) V* with Oregon Health & Science University (OHSU), AHRQ, 2015 – 2019

Co-investigator, RFTO #18: *Medication Assisted Treatment*, 2016, \$17,049 (10% Time)

Co-investigator, RFTO #19: *Treatment for Schizophrenia*, 2016-2017, \$42,891 (10% time)

Co-investigator, RFTO #25: *Systematic Reviews to Support the USPSTF, A and B*, 2016-2017, \$111,323 (5% time)

Co-investigator, RFTO #30: *Telehealth for Acute and Chronic Consultation*, 2016-2017 \$232,451 (5% time)

Co-investigator, RFTO #34: *Non-Pharmacological Treatment for Pain*, 2016-2017 \$142,846 (5% time)

Faculty Mentor, *UW Biomedical and Health Informatics Training Program*, (2T15-LM 007442-13; PIs: Demiris, Tarczy-Hornoch) NIH/NLM, 07/01/02 - 06/30/17 (Donated)

Principal Investigator, *ITHS Certificate in Translational Team Science*. Herb Jones Foundation. 2015-2018, \$40,000

Principal Investigator, *UW Center of Excellence for a Comparative Effectiveness Research Educational Program*, PhRMA Foundation, 2014-2015, \$83,333 (5%)

Principal Investigator, *Use of Patient-Reported Outcome Instruments in Clinical Trials*, Novartis Pharmaceuticals, 2013-2014, \$50,263

Consortium Co-Investigator, Pacific Northwest Evidence-based Practice Center (EPC) IV with Oregon Health & Science University (OHSU), Consortium PI: Sullivan, AHRQ, 2012-2015

Co-Investigator, RFTO #6: *Imaging for Hepatocellular Cancer*, 2013-2014, \$78,346 (5%)

Co-Investigator, RFTO #7: *Opioids for Chronic Pain*, 2013-2014, \$161,438 (5%)

Co-investigator, RFTO #10: *Imaging Techniques for Metastatic Breast Cancer*, 2013-2014, \$162,460 (25%)

Co-investigator, RFTO #12: *Health Information Exchanges*, 2013-2015, \$63,007 (20%)

Principal Investigator/Faculty Mentor, *UW-Allergan Post-Doctoral Fellowship* (Training Grant), Allergan Pharmaceuticals, 2012 - 2024 (n=18)

2012-2014	Zsolt Hepp, PharmD	\$147,083	(1.5%)
2013-2015	Tracy Yep, PharmD	\$169,765	(1.5%)
2014-2016	Kate Keyloun, PharmD	\$174,858	(1.5%)
2014-2016	Vanessa Shih, PharmD	\$174,858	(1.5%)
2015-2017	Sarah Baradaran, PharmD	\$179,714	(1.5%)
2015-2017	Amy Tung, PharmD	\$179,714	(1.5%)
2016-2018	Michael Serbin, PharmD,	\$204,153	(5%)
2016-2018	Sheila Shapouri, PharmD,	\$204,153	(5%)
2017-2019	Chiemeke Ike, PharmD, MPH	\$205,772	(5%)
2017-2019	Sara Higa, PharmD, MS	\$205,772	(5%)
2018-2020	Ashley Kim, PharmD	\$219,909	(5%)
2018-2020	Jamie Ta, PharmD	\$219,909	(5%)
2019-2021	Brennan Beal, PharmD	\$219,909	(5%)
2019-2021	Jae Lee	\$219,909	(5%)
2020-2022	Tae Jin Park	\$228,783	(5%)
2020-2022	Kimberly Cai	\$228,783	(5%)
2022-2024	Jae Kim	\$239,243	(10%/5%)
2022-2024	Zachary Baldwin	\$239,243	(10%/5%)

Co-investigator/Faculty Mentor, *UW-Allergan Post-Doctoral Fellowship* (Training Grant), Allergan Pharmaceuticals, (n=4)

2009-2011	Patrick Gillard, PharmD	Donated time
2010-2012	Joanna Sanderson	Donated time
2011-2013	Vincent Lin	Donated time
2012-2014	Chris Wallick, PharmD	Donated time

Co-Investigator (Lead, CERTAIN Methods Core), *CERTAIN (Comparative Effectiveness Research Translation Network) Hub*, AHRQ R01 HS022959, PI: Flum, 2013-2015, \$735,830 (10% in 2013)

Co-Investigator/Key Personnel, UW Institute for Translational Health Sciences (ITHS), Education Core, NIH/NCATS/CTSA 5 UL1 TR000423-07 (PI: Disis) 6/1/2013 – 12/31/2015, \$6,920,759 (10%)

Co-Investigator, *Evaluation of Initial Prescription Monitoring Program Implementation*, (PI: Banta-Green), Washington State Department of Health, 2013-2014, \$93,897 (10%)

Co-Investigator, *UW Center of Excellence for a Comparative Effectiveness Research Educational Program*, PI: Garrison, PhRMA Foundation, 2011-2014, \$166,667 (5%)

Co-Investigator, *National CER Curricular Conference*, PI: Segal (Johns Hopkins), AHRQ Conference Grant, 2013-2014 (Donated)

Lead Co-Investigator, CERTAIN Methods Core; Co-Investigator, CERTAIN HIT Core; *Surgical Care and Outcomes Assessment Program Comparative Effectiveness Research Network (SCOAP) CERTAIN*, PI: Flum, AHRQ 1R01 HS20025, 2010-2013, \$11,799,186 (20%)

Lead Co-Investigator: *Communication to Prevent and Respond to Medical Injuries: WA State Collaborative; Effect on Communication Sensitive Clinical Events*, PI: Gallagher, AHRQ 1R18 HS019531, 2010-2014, \$2,348,681 (10%)

Principal Investigator, *Validation of Electronic Clinical Data for Comparative Effectiveness Research: The SCOAP CERTAIN Validation Study*, Academy Health UW #20-3859/AHRQ, 2011-2012, \$7,000

Co-Investigator, *A Problem-Solving Intervention for Hospital Caregivers*, PI: Demiris, NIH: National Institute of Nursing Research 1R01 NR012213, 2011-2012, \$1,975,439 (5%)

Co-Investigator, *CER Administrative Supplement, Workforce Development*, PI: Disis, NIH, CER Administrative Supplement to UW ITHS Grant 5UL1 RR025014, 2010-2011, \$320,513 (2%)

Co-Investigator, *Tools for Optimizing Prescribing*, PI: Lambert (University of Illinois, Chicago), AHRQ Centers for Education and Research on Therapeutics (CERTs) 1U18 HS016973, 2009-2011 (Donated)

Principal Investigator, *Evaluating e-prescribing in a Community-based, Integrated Health System*, AHRQ 5K08 HS014739, 2006-2011, \$509,982 (75%-85%)

Co-Principal Investigator (with Chan), *Acquired Coagulopathy in Hospitalized Patients: A Pilot Study to Determine the Impact on Clinical and Economic Outcomes*, Zymogenetics, \$174,877 (10%)

Lead Co-Investigator, *Evaluating the Impact of an Ambulatory Computerized Provider Order Entry System with Clinical Decision Support Alerts on Outcomes*, PI: Sullivan, AHRQ 5UC1 HS015319, 2004-2007, \$1,030,363 (Federal) /\$2,389,035 (including cost-sharing) (20%)

Principal Investigator, *Surgical Site Infection Prevention*, Amerinet, 2006, \$18,000

Principal Investigator, *Characterizing Medication Errors using an Ambulatory Computerized Prescriber Order Entry System*, UW Royalty Research Fund, 2005, \$10,221

Principal Investigator, *Treatment of Warfarin-Associated Coagulopathy Benchmarking Outcomes Study*, Amerinet, 2005, \$17,000

Principal Investigator, *Heart Failure Outcomes Benchmarking Project*, Amerinet, 2004, \$15,000

Principal Investigator, *Characterizing the Prescription-flow Process and Medication Error Rates in the Multi-specialty Clinic Ambulatory Care Setting*, The Merck Foundation, 2002-2004, \$34,916

Faculty Mentor and Co-PI: *Characterizing the Prescription-flow Process and Medication Error Rates in the Multi-specialty Clinic Ambulatory Care Setting*, ASHP Research and Education Foundation Pharmacy Resident Medication Safety Grant, 2002-2004, \$2,747

Co-Investigator, *The Use of Electronic Prescribing Technology to Impact Medication Errors in the Multispecialty Clinic Setting*, PI: Fisk, (The Everett Clinic), American Medical Group Association, 2002-2003, \$50,000 (5%)

PUBLICATIONS AND PRESENTATIONS

*mentored a student

**co-first or co-senior author

MyNCBI Bibliography (n=187; includes book, chapters, commentaries/editorials, blog)

<https://www.ncbi.nlm.nih.gov/myncbi/emily.devine.1/bibliography/public/>

Google Scholar Profile: (n = 336; citations: 11189; h-index = 45, i10-index = 135)

<https://scholar.google.com/citations?user=Wor4Qv0AAAAJ&hl=en>

Manuscripts in Preparation

Devine B, Welton NJ, Higgins JPT. The impact on results when causal inference studies and bias-adjustment procedures are incorporated into network meta-analyses of randomized controlled trials.

Manuscripts Submitted and under Review

1. Moreno-Llamas AS, Li J, **Devine B**. Socioeconomic inequalities in overall self-rated health status, mental health symptoms, and physical functioning in Populations with Chronic Diseases: Comparing of Spain and the US (*under review at Prev Med, September 2025*)

Peer-Reviewed Publications (n=177)

1. White A, Shukla S, , Onukuwugha E, **Devine B**, Slejko J, Wac K, Albarmawi H, Valliant S, Murray J, Pizzi L. HEOR Competencies: A resource for HEOR Professionals, 2026 Update. (*ISPOR White Paper, forthcoming, early 2026*)

2. *Li KH, Duffy EK, Luong J, **Devine B**. Biologic Treatments in Adolescents With Moderate-to-Severe Atopic Dermatitis: A Systematic Literature Review and Network Meta-analysis. *Ann Pharmacother.* 2026 Feb 4:10600280251415369. doi: 10.1177/10600280251415369. Online ahead of print.

3. **Devine B**, Albers S, Chan HH, Jiang S, Dusic EJ, Harris, H, Shirts B, Brandt J, Swisher E, Bowen DJ. Comparative and cost-effectiveness of primary care screening strategies to identify patients at high risk of hereditary cancers. (*in press at BMC Primary Care*, November 2025)
4. Smith DM, Douglas MP, Aquilante CL, Dverka PA, Devine B, Dunnenberger HM, Empey PE, Hertz DL, Monte AA, Moyer AM, Patel JN, Pratt VM, Saulsberry L, Scott SA, Voora D, Woodahl EL, Whirl-Carrillo M, Oni-Orisan A. Progress in Pharmacogenomics Implementation in the U.S.: Barrier Erosion and Remaining Challenges. *Clin Pharmacol Ther*. 2025 Oct;118(4):778-789. doi: 10.1002/cpt.3736. Epub 2025 Jun 4. PMID: 40468601.
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1. Baldwin Z, Jiao B, Basu A, Roth J, Bender MA, **Devine B**. *Medical and non-medical costs of sickle cell disease, treatments and related complications: A Systematic Review and Landscape Analysis*. NHLBI CureSickle Cell, Clinical and Economic Impact Analysis Consortium. May 2020. (internal to NHLBI)
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Blog Post

Saldarriaga EM, **Devine B**. Lessons from a meta-analysis in the presence of statistical heterogeneity. A case study of SARS-CoV-2 detection window. Incremental Thoughts, The CHOICE Institute Student Blog. February 2022. Available at: <https://choiceblog.org/2022/02/>

Invited Commentaries and Editorials

1. David SP, **Devine B**, Palaniappan L, Houwink EJ. Editorial: State of the science of pharmacogenomics implementation in healthcare systems and communities. *Front Pharmacol*. 2024;15:1463384. doi: 10.3389/fphar.2024.1463384. eCollection 2024. PubMed PMID: 39114360; PubMed Central PMCID: PMC11303329.

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2. **Devine B**, Chow V. A continuity of care, pharmaceutical care model for HIV patients. *California Journal of Health-System Pharmacy* 1996; 8 (1): 6-9

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Book Author and Editor

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Book Chapters/Contributions

1. Boyce RD, Camacho J, Liang W, Wiisanen K, **Devine B**. Overview of effective pharmacogenomic clinical decision support In: **Devine EB**, Boyce R, Wiisanen K (eds). *Clinical Decision Support for Pharmacogenomic Precision Medicine*. Elsevier, 2022. ISBN 978-0-12-824-453-1.

2. Hersh WR, Totten AM, Eden K, **Devine B**, Gorman P, Kassakian SZ, Woods SS, Daeges M, Pappas M, McDonagh M. Part IV: The Value of HIE, Chapter 14 The Evidence Base for Health Information Exchange. In: *Health Information Exchange, Navigating and Managing a Network of Health Information Systems*, edited by Brian E. Dixon. Oxford, UK: Elsevier, Inc., 2016. pp.213-229

3. **Devine EB**, Baradaran S. Chapter 10: Sources of Data for Comparative Effectiveness Research. In: *Comparative Effectiveness Research, Ed. Adrian Levy, Vol. 1*, Handbook of Health Services Research, edited by B. Sobolev. New York: Springer Science + Business Media, March 2016

4. Beney J, **Devine EB**, Bero LA. Effect of Telephone Follow-up on the Physical Well-Being Dimension of Quality of Life in Patients with Cancer. *Pharmacotherapy* 22(10):1301-1311, 2002. Data from our study was used in: Daniel WW (ed.) *Biostatistics: A Foundation for Analysis in the Health Sciences*, 8th edition. 2005; John Wiley and Sons, Inc., New York

5. **Devine B**. Alcoholism Case Report. *Workbook for Clinical Pharmacy and Therapeutics, 5th Edition*. Edited by DR Gourley, ET Herfindal and DS Schroeder. Baltimore: Williams and Wilkins (1996)

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Abstracts of Podium and Panel Presentations (n=58)

*mentored a student

**co-first or co-senior author

1. **Devine B**, Higgins JPT, Welton NJ. The impact of adding bias-adjusted non-randomized studies of interventions to randomized trials in network meta-analyses. Society for Research Synthesis Methodology, Chania, Crete, Greece, June 2026.
2. Whiting P, Wolff R, **Devine B**, Savovic J, Mallett S. Ensuring Study Validity to Inform Health Technology Assessments Globally: The LATITUDES Network. Global Evidence Summit, Prague, Czech Republic, September 2024.
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4. **Devine B**, Carlson JJ, Malone D, Seabury S (moderator). How to author/submit peer-reviewed journal articles. Western Pharmacoeconomic Conference, University of Southern California School of Pharmacy, March 2023.
5. **Devine B**, Veenstra DL, Miller A, Patino-Sutton C, Romley J (moderator). How to approach grant funding opportunities for predoctoral, postdoctoral and early-career investigators. Western Pharmacoeconomic Conference, University of Southern California School of Pharmacy, March 2023.
6. *Ohlsen TJD, Brothers AW, Hrachovec J, Wilkes JJ, **Devine B**, Migita DS. Antimicrobial locks for CLABSI prevention in the inpatient setting: A cost-effectiveness analysis. American Society of Pediatric Hematology/Oncology Conference. May 12, 2023, Fort Worth, TX.
7. Qureshi R, Mayo-Wilson E, Pieper Dawid, Vohra S (Discussant), **Devine B (Chair)**. Compounding complications: Synthesizing harms across the evidence pipeline. A symposium for the Annual International Meeting of the Society for Research Synthesis Methodology, Portland, Oregon, July 2022.
8. De la Cruz-Sánchez E, Moreno-Llamas A, García-Mayor J, Mendiola-Olivares J, Torres-Cantero A, **Devine B**. Estimating the association between Covid-19 sources of information, beliefs, and vaccination rates: Results from an EU-wide survey. II congreso de la Sociedad Murciana de Medicina Preventiva y Salud Publica, Murcia, España, May 20, 2022 (presented in Spanish by De la Cruz)
9. *Poehler, D., Czerniecki, J., Norvell, D., Henderson, A., & Devine, B. *Comparing Provider Perceptions with Patient Values Around Amputation Level using a Multiple Criteria Decision Analysis (MCDA)*. 2022 National Health Policy Conference, **AcademyHealth**. Theme: Patient Values and Preferences and Inequities in Care Delivery, June 2022
10. *Poehler, D., Devine, B., Norvell, D., Henderson, A., & Czerniecki, J. *Developing a Multiple Criteria Decision Analysis (MCDA) Framework for Amputation-Level Decision Making*. **2021 Center for Limb Loss and Mobility Young Investigator Symposium**.
11. *Saldarriaga EM, Hauber B, Carlson JJ, Barthold D, Veenstra DL, **Devine B**. Assessment of payers' preferences for real world evidence: A discrete choice experiment. International Health Economics Association (iHEA) Congress. July 2021 (presented by Saldarriaga)
12. *Chen S, **Devine B**, Basu A. A Bayesian Meta-analysis of the Impact of the Number of Generic Drug Competitors on Drug Prices. SMDM, Montreal, October 2020 (virtual)
13. Beal B, **Devine B**. The REAdi tool: Using R Shiny as a tool for real world evidence evaluation. R/Medicine Conference, August 2020 (delivered virtually)
14. Wilson-Norton J, Chaitesipaseut L, Mikes T, Nguyen H, **Devine B**. Demonstrating the Feasibility of Using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities. Washington State Pharmacists Convention, May 2020 (invited presentation; delivered virtually)
15. *Woodbury, R. B., Hiratsuka, V., **Devine, B**. *Direct-to-Consumer Genetic Testing among Alaska Native and American Indian People: Preliminary Results on Use, Knowledge and Impacts* [Platform talk]. 2020 NHGRI Research Training and Career Development Annual Meeting, Philadelphia, PA, March 2020 (held virtually) <https://biostat.wustl.edu/dacc2/conference-home/>
16. ***Devine B**, Bounthavong M. Using a Bayesian network meta-analysis to parameterize a cost-utility and value of information analysis of biologics for Moderate-to-Severe Crohn's disease. Society for Research Synthesis Methodology, Chicago, IL, July 2019 (podium presented by Devine)
17. *Ta JT, Roth J, **Devine B**, Garrison L. "Net Health Benefit" – ASCO vs. ICER Value Frameworks: Are We Talking about the Same Thing? Podium presentation at the ISPOR Health Preference Methods Special Interest Group "Frontiers in Health Preference Research" Forum at ISPOR 2019, New Orleans, LA (May 20, 2019).

18. *Bounthavong M, Suh K, Christopher MLD, Veenstra DL, Basu A, **Devine EB**. Providers' perceptions of academic detailing on opioid overdose education and naloxone prescribing behavior: A mixed methods study. National Resource Center for Academic Detailing (NaRCAD). Boston, MA, November 2018 (podium delivered by Bounthavong)
19. *Bounthavong M, **Devine EB**, Christopher MLD, Harvey MA, Veenstra DL, Basu A. Implementation strength of academic detailing on the number of naloxone prescriptions at the Veterans Health Administration. Vancouver Health Economics Meeting (VanHEM), Vancouver, BC, May 2018 (discussant presented manuscript)
20. *Cizik AM, Babigumira J, **Devine B**, Davidson DJ, Garrison LP. Surgical Treatment Strategies in Soft Tissue Sarcoma: Are Surgeons Good Agents for Patients and Society? Society for Medical Decision Making, Pittsburgh, PA, October 2017 (podium delivered by Cizik)
21. *Hendrix N, **Devine B**. Deriving utility weights from patient-reported outcomes in epilepsy: a mapping of the QOLIE-31 in the US setting. Vancouver Health Economics Methods Meeting, Vancouver, BC, June 2017 (discussant presented manuscript)
22. *Hendrix N, Simon N, **Devine B**. Funder effects on reporting of health-state utilities. **National Research Service Award (NRSA) Trainees Research Conference, Academy Health Annual Research Meeting, New Orleans, LA, June 2017 (podium delivered by Hendrix)**
23. *Wang WJ, Basu A, Bansal A, White HS, **Devine B**. Meta-Analyzing Count Events over Varying Durations Using the Convolutional Poisson Model: The Case for Post Stroke Seizures. Society for Research Synthesis Methodology, July 2017, Montreal, QB, CA (podium delivered by Wang)
24. ****Devine B, **Chin L, Baradaran S, Keyloun K, Canestaro WJ, Pham J**. Characterizing the strength of evidence in FDA Labels for pharmacogenomic biomarker-guided medication use. AMIA 2017 Joint Summits on Translational Science, San Francisco, March 2017 (podium) (**co-primary authors; podium delivered by Devine)
25. ****Keyloun KR, Hansen RN, Hepp Z, Gillard, P, Thase ME, **Devine EB**. Adherence and Persistence across Antidepressant Therapeutic Classes: A Retrospective Claims Analysis among Insured US Patients with Major Depressive Disorder. American Society of Clinical Psychopharmacology 2016 Annual Meeting, Scottsdale, AZ, May 2016 (podium delivered by Keyloun)
26. **Devine B, Khelifi M, Keyloun K, Hendrix N, Mathias P, Bock C, Tarczy-Hornoch P**. Characterizing the Frequency of Pharmacogenomic Biomarker-Guided Prescribing for Drugs with Pharmacogenomic Biomarker information in the FDA Labelling: A Pilot Study Using Data from an Electronic Health Record. American Medical Informatics Association Annual Symposium, San Francisco, CA, November 2015 (podium delivered by Devine)
27. Butler M, **Devine EB**, Hamm MP, Kahwati LC, McPheeters ML, Miles JNV, Morton SC, Murad MH, Viswanathan M. Selecting analytic approaches for systematic reviews of complex interventions. Cochrane Colloquium 2015, Vienna, Austria, October 2015 (podium delivered by M. Viswanathan)
28. *Dhanda D, **Devine EB**. Disease specific patient reported outcome measures in atrial fibrillation: Systematic review and assessment of the measurement properties. Society for Medical Decision Making 37th Annual North American Meeting, St. Louis, MO, October 2015 (podium delivered by Dhanda)
29. Patrick DL, Edwards T, Thomason E, Meisner N, **Devine EB**, Lavalley D, Heneghan R, Starnes B, Armstrong C, Flum DR. Rutherford Criteria compared to patient reported claudication severity scoring. Western Washington Annual Vascular Society Meeting, September 2015 (podium delivered by Thomason)
30. *Lee CJ, Tarczy-Hornoch P, **Devine, EB**. A semantic web-based informatics approach to achieve efficient and precise evidence retrieval for evidence synthesis: Clopidogrel and warfarin pharmacogenomics research as use cases. Annual Meeting of the Society for Research Synthesis Methodology, Nashville, TN, July 2015 (podium delivered by Lee)
31. *Bounthavong M, **Devine EB**, Veenstra DL. A cost utility analysis of biologics for moderate-to-severe Crohn's disease: Evidence synthesis using a network meta-analysis. Western Pharmacoeconomics Conference, Denver, CO, March 2015 (podium delivered by Bounthavong)
32. *Hepp Z, Dodick DW, Varon SF, Gillard P, Hansen R, **Devine EB**. Adherence to oral migraine preventive medications among patients with chronic migraine: analysis of a large US health insurance claims database. American Association of Nurse Practitioners National Conference, Nashville, TN, June 2014 (podium delivered by Hepp)

33. Farrokhi ET, **Devine, EB**, et al. Peripheral artery disease comparative effectiveness research study. Baseline results. Pacific Northwest Vascular Society Annual Meeting. Coeur D'Alene, ID, October 17-18, 2013 (podium delivered by Farrokhi)
34. Alfonso R, **Devine, EB**, et al. Checklist for risk factors for peripheral artery disease. Pacific Northwest Vascular Society Annual Meeting. Coeur D'Alene, ID, October 17-18, 2013 (podium delivered by Alfonso)
35. ***Devine EB**, Cheng MM. Using parametric survival curves to estimate progression-free survival in a network meta-analysis of treatments of chronic lymphocytic leukemia. 8th Annual Meeting of the Society for Research Synthesis Methodology, Providence, RI, June 2013 (podium delivered by Devine)
36. *Hepp Z, Dodick DW, Varon SF, Gillard P, Hansen R, **Devine EB**, Adherence to oral migraine preventive medications among patients with chronic migraine: analysis of a large US health insurance claims database. American Academy of Neurology. Philadelphia, PA, April 2014 (podium and poster delivered by Hepp)
37. *Overby CL, **Devine EB**, Abernethy N, McCune JS, Tarczy-Hornoch P. Assessing the effective communication of pharmacoeconomic knowledge embedded in the electronic health record for drug therapy individualization. Annual Symposium of the American Medical Informatics Association, Washington DC, November 2012 (podium delivered by Overby)
38. *Lau B, **Devine EB**, Overby CL. Use of clinical decision support to improve adherence to national drug-laboratory monitoring guidelines. National Research Service Award (NRSA) Trainees Research Conference, Academy Health Annual Research Meeting, Orlando, FL, June 2012 (podium delivered by Lau)
39. Thompson D, Jansen J, Fleurence R, Itzler R, **Devine EB**. Report of the Task Force on Indirect Treatment Comparisons Good Research Practices. International Society for Pharmacoeconomics and Outcomes Research, Report to the General Membership, ISPOR 15th Annual International Meeting, Atlanta, GA, May (panel presentation delivered by all)
40. ***Devine EB**, Chan LN, Babigumira J, Kao H, Drysdale T, Reilly D, McNeely M, Sullivan SD. Acquired Coagulopathy in Post-Surgical Patients: A Pilot Study to Determine the Impact on Clinical and Economic Outcomes. 2009 Annual Meeting, American College of Clinical Pharmacy, Anaheim, CA, October 2009 (podium delivered by Chan)
41. Wolf F, **Devine B**. Comparing Results of Frequentist and Bayesian Approaches to Explore the Comparative Effectiveness of Subgroups in a Cochrane Systematic Review. Society for Research Synthesis Methodology, Ottawa, Canada, July 2011 (podium delivered by Devine)
42. *Overby CL, **Devine EB**, Tarczy-Hornoch P, Kalet I. Deriving rules and assertions from pharmacogenomic knowledge resources in support of patient drug response predictions. Workshop on Intelligent Data Analysis in Biomedicine and Pharmacology: Machine Learning in Medical Applications, Annual Symposium of the American Medical Informatics Association, Washington DC, November 2010 (podium delivered by Overby)
43. **Devine EB**. Comparative effectiveness of biologic therapies in rheumatoid arthritis: An indirect comparisons approach. Indirect and Mixed Treatment Comparisons Workshop. University of Leicester, Leicester, England, September 2010 (podium delivered by Devine)
44. *Patel R, **Devine EB**, Lawless NM, Wilson-Norton JL, Sullivan SD. Perceptions of an ambulatory CPOE system: A survey of community-based primary care prescribers and staff. International Partnership in Health Informatics Education, 2009 Masterclass, Amsterdam, NL, June 2009 (work-in-progress; podium delivered by Patel)
45. **Devine EB**, Wilson-Norton JL, Lawless NL, Hansen RN, Fisk AW, Sullivan SD. The Impact of an Ambulatory CPOE System on Medication Errors. 14th Annual National Research Service Award (NRSA) Trainees Research Conference, held in conjunction with Academy Health. Washington DC, June 2008 (podium delivered by Devine)
46. **Devine EB**, Wilson-Norton JL, Lawless NL, Hollingworth W, Hansen RN, Comstock BA, Fisk AW, Sullivan SD. Implementing an ambulatory e-prescribing system: A journey, not a solution. First Annual Meeting of the Agency for Healthcare Research and Quality. Washington DC, September 2007 (podium delivered by Devine)
47. Hansen R, Ferrera T, Wilson-Norton JL, Lawless NL, **Devine EB**, Hollingworth W, Sullivan SD, Tharp KLA. e-Prescribing at The Everett Clinic: The Retail Pharmacy Experience. 2006 Northwest Pharmacy Convention, Coeur d'Alene, ID, June 2006 (podium delivered by Hansen)
48. Hollingworth W, **Devine EB**, Hansen RN, Comstock BA, Wilson-Norton JL, Lawless NM, Fisk AW, Tharp KL, Sullivan SD. The impact of an ambulatory electronic prescribing system on prescriber and staff time: A time-motion study. AHRQ Annual Patient Safety and Health Information Technology Conference. Agency for Healthcare Research and Quality. Washington DC, June 2006 (podium delivered by Devine)

49. **Devine EB**, Wilson-Norton JL, Lawless NM, Hansen R, Kelly K, Te S, Wong C, Hazlet TK, Fisk AW, Sullivan SD. *Characterizing the Epidemiology of Medication Errors in a Multispecialty Clinic Setting*. American Society of Health-System Pharmacists Midyear Clinical Meeting, Las Vegas, NV, December 2005. (podium delivered by Devine)
50. **Devine EB**, Wilson-Norton JL, Lawless NM, Hansen R, Kelly K, Te S, Wong C, Hazlet TK, Fisk AW, Sullivan SD. Evaluating prescribing errors pre- and post-CPOE in the ambulatory setting. 2005 Annual Patient Safety and Health Information Technology Conference: Making the Health Care System Safer through Implementation and Innovation. Agency for Healthcare Research and Quality. Washington DC. June 2005 (podium delivered by Devine)
51. Hollingworth W, **Devine EB**, Lawless NM, Hansen R, Wilson-Norton JL, Tharp K, Sullivan SD. Evaluating the Impact of an ACPOE/CDS System on Outcomes: Using a Time and Motion Study to Measure Workload. 2005 Annual Patient Safety and Health Information Technology Conference: Making the Health Care System Safer through Implementation and Innovation. Agency for Healthcare Research and Quality. Washington DC. June, 2005 (exhibit display)
52. **Devine EB**. Keys to Successful ACPOE Implementation. Clinical Pearl Presentation. American Society of Health-System Pharmacists Midyear Clinical Meeting. Orlando, FL. December 2004 (podium delivered by Devine)
53. Wilson-Norton JL, Lawless NM, Fisk AF, Rafoth RJ, **Devine EB**. The use of electronic prescribing technology to impact medication errors. Final project presentation to the members of the Safety Collaborative in the Outpatient Environment (SCOPE) project. American Medical Group Association. New Orleans, LA, November 2003. (podium delivered by Wilson-Norton)
54. **Devine EB**, Sullivan SD, Lew DP, Veenstra DL. Health state preferences in diabetic peripheral neuropathy. *Value in Health*. 2000;3(2):56. (podium delivered by Devine)
55. *Shahkarami M, Brethauer B, **Devine B**, Louie C, Kayser S. Computerizing a documentation and reporting system for clinical services. *California Journal of Health-System Pharmacy*. 1999;11(6):26. (podium delivered by Shahkarami)
56. *Chang CY, Bolinger AM, **Devine B**, Matthay K, Wu HT, Zangwill AB. Compliance and outcome associated with pediatric oncology antiemetic guidelines. *Journal of Pediatric Pharmacy Practice*. 1998;3:286. (podium delivered by Chang)
57. *Chang CY, Bolinger AM, **Devine B**, Matthay K, Wu HT, Zangwill AB. Compliance and outcome associated with pediatric oncology antiemetic guidelines. *California Journal of Health-System Pharmacy*. 1998;10(6):42. (podium delivered by Chang)
58. *Wong H, **Devine B**, Kelley S. The use of albumin versus crystalloids in complex spinal surgery cases. *California Journal of Health-System Pharmacy*. 1998;10(6):12. (podium delivered by Wong)
59. *Kroon L, **Devine, B**. Countdown! Preparing for a JCAHO visit - A pharmacy manager's perspective. ASHP Midyear Clinical Meeting. 31(Dec): p MCS-69, 1996. (podium delivered by Devine)

Abstracts of Poster Presentations (n=134)

*mentored a student

**co-first or co-senior author

1. **Devine B**, Higgins JPT, Welton NJ. The impact of adding bias-adjusted non-randomized studies of interventions to randomized trials in network meta-analyses. Society for Medical Decision Making, Oslo, Norway, June 2026.
2. **Devine B**, Whiting P, Savovic J, Wolff R, Mallett S, Holmes, J. The LATITUDES NETWORK: Ensuring Study Validity to Inform Health Policy Globally. Society for Medical Decision Making, Oslo, Norway, June 2026.
3. **Devine B**, Whiting P, Savovic J, Wolff R, Mallett S, Holmes, J. The LATITUDES NETWORK: Ensuring Study Validity to Inform Health Policy Globally. ISPOR International Meeting, Philadelphia, PA, May 2026.
4. *Chan HH, **Devine B**. Cost-effectiveness of primary care-based risk assessment and hereditary cancer genetic testing. ISPOR International Meeting, Montreal, Quebec, CA, May 2025.
5. Dhippayom T, Chaiyakunapruk N, **Devine B**. Comparative analysis of non-pharmacological interventions network meta-analyses using the novel TIP (Theme, Intensity, Provider/Platform) Framework. Global Evidence Summit, Prague, Czech Republic, September 2024.
6. **Devine B**, Whiting P, Wolff R, Savovic J, Mallett S. Ensuring Study Validity to Inform Health Technology Assessments Globally: The LATITUDES Network. Health Technology Assessment International (HTAi), Sevilla, Spain, June 2024. (virtual)
7. *Kim JR, Park TJ, Agapova M, Blumenfeld A, Smith JH, Shah D, **Devine B**. Healthcare Resource Use and Costs Associated with the Misdiagnosis of Migraine. ENCORE PRESENTATION: Diamond Headache Clinic Research and Educational Foundation - The Revolution & Paradigm Shift in Treatment of Migraine 2024. San Diego, CA, June 2 2024

8. *Kim JR, Park TJ, Agapova M, Blumenfeld A, Smith JH, Shah D, **Devine B**. Healthcare Resource Use and Costs Associated with the Misdiagnosis of Migraine. American Academy of Neurology, Denver, CO, April 2024
9. Moreno-Llamas A, De la Cruz-Sánchez E, Mendiola Olivares J, García-Mayor J, Torres-Cantero A, **Devine B**. Covid-19 sources of information may affect vaccination intent through individual beliefs: an EU-wide survey analysis. UW Corporate Advisory Board Meeting, Seattle, WA, September 2023
10. *Baldwin Z, **Devine B**. Incidence of malignancies in Sickle Cell Disease (SCD): A systematic review and meta-analysis. ISPOR Annual International Meeting, Boston, MA, May 2023.
11. *Kim J, Park TJ, **Devine B**. Cost Effectiveness of Dual vs. Triple Therapy in Management of Atrial Fibrillation with Percutaneous Coronary Intervention. ISPOR Annual International Meeting, Boston, MA, May 2023.
12. *Guo B, Knerr S, Kauffman TL, Mittendorf KF, Keast E, Gilmore MJ, Feigelson HS, Lynch FL, Muessig KR, Okuyama S, Zepp JM, Veenstra DL, Hsu L, Phipps AI, Lindström S, Leo MC, Goddard KAB, Wilfond BS, **Devine B**, *on behalf of the CHARM Study team* Risk Management Actions Following Genetic Testing in the Cancer Health Assessments Reaching Many (CHARM) Study: A Prospective Cohort Study. 2023 NHGRI Research Training and Career Development Annual Meeting; April 2023; Salt Lake City, UT
13. Bloudek L, Bloudek B, Pandey R, Migliaccio-Walle K, Campbell D, **Devine B**. Application and Feasibility of Indirect Treatment Comparison of Switch Maintenance and Non-Maintenance Oncology Regimens to Inform HTA Decision-Making. ISPOR Europe 2022; November 2022; Vienna, Austria.
14. *Baldwin Z, Yan C, **Devine B**. Healthcare Resource Use and Economic Burden of Device-Assisted Therapies in Parkinson's Disease. A Systematic Review. UW Corporate Advisory Board, September 2022, Seattle WA
15. *Kim Ja, Park TJ, **Devine B**. Characteristics of Diagnostic Setting in Migraine Diagnosis: A Systematic Review. UW Corporate Advisory Board, September 2022, Seattle WA
16. *Park T, Hansen R, Gillard P, Ferguson W, Piccini J, Romano M, Devine B. Incremental Healthcare Costs for Cardiac Surgery Patients with New-Onset Post-operative Atrial Fibrillation. Heart Rhythm Society 2022; April 2022; San Francisco, CA.
17. *Park T, Hansen R, Gillard P, Ferguson W, Piccini J, Romano M, Devine B. Incremental Healthcare Costs for Cardiac Surgery Patients with New-Onset Post-operative Atrial Fibrillation. ISPOR 2022; May 2022; National Harbor, MD.
18. Bloudek L, Hepp Z, McKay C, Devine B, Derleth C, Lill J, Lenero E, Wright P, Ramsey SD, Sullivan SD. Systematic literature review (SLR) and network meta-analysis (NMA) of first-line (1L) therapies for locally advanced/metastatic urothelial carcinoma (la/mUC). ASCO 2022 Genitourinary Cancers Symposium.
19. Chua S, Gray S, Todd A, Hughes S, Husband A, Elsis Z, Huang Y, Smith S, Reeve E, Park TJ, Harris J, **Devine B**. Effectiveness of deprescribing interventions: Methodological challenges when conducting an overview of systematic literature reviews. Society for Research Synthesis Methodology. Bern, Switzerland, June 2021 (virtual)
20. Bloudek L, Hepp Z, McKay C, Devine B, Derleth C, Lill J, Lenero E, Ramsey SD, Sullivan SD. Systematic literature review (SLR) and network meta-analysis (NMA) of first-line (1L) therapies for locally advanced/metastatic urothelial carcinoma (la/mUC). European Society for Medical Oncology, September 2021. (virtual)
21. Chua S, **Devine B**, Todd A, Huang Y, Hughes S, Elsis Z, Husband A, Gray SL. Effectiveness of deprescribing interventions in older adults: An overview of systematic literature reviews. American Geriatric Society. May 2021. (virtual)
22. *Baldwin Z, Jiao B, Johnson KM, Basu A, Roth J, Bender MA, Ramsey SD, **Devine B**. Economic impact of Sickle Cell Disease, Treatments and Related Complications. ISPOR , May 2021. (virtual)
23. *Park TJ, **Devine, B**. Cost-effectiveness of dual versus triple antithrombotic therapy in atrial fibrillation and recent PCI. ISPOR , May 2021. (virtual)
24. *Cai K, **Devine, B**. A threshold analysis of the cost-effectiveness of adjunctive inclisiran therapy for ASCVD patients with LDL $\geq$ 70 mg/dl on maximally tolerated statin therapy. ISPOR , May 2021. (virtual)
25. Jiang S, Mathias P, Hendrix N, Veenstra D, **Devine B**. Implementation of pharmacogenomic clinical decision support alerts in Learning Health Systems: A cost-utility analysis. ISPOR , May 2021. (virtual)
26. *Cha A, Chen Y, Rivara M, **Devine B**. Microvascular benefits of new antidiabetic agents: A systematic review and network meta-analysis of renal outcomes. UW Corporate Advisory Board Meeting, Seattle, WA (September 2020; virtual)

27. *Jiang J, Hendrix NL, Mathias P, Veenstra DL, **Devine B**. PharmaGenomics Clinical Support Economic VALUE (PRECISE VALUE) for Learning Health Systems. UW Corporate Advisory Board Meeting, Seattle, WA (September 2020; virtual)
28. *Park TJ, **Devine B**. UW Corporate Advisory Board Meeting, Seattle, WA (September 2020; virtual)
29. *Cai K, **Devine B**. UW Corporate Advisory Board Meeting, Seattle, WA (September 2020; virtual)
30. *Ta JT, Sullivan SD, Tung A, Oliven D, Gillard P, **Devine B**. Healthcare Resource Utilization and Costs Associated with Non-Adherence and Non-Persistence to Antidepressants for Major Depressive Disorder. ENCORE Poster Presentation. AMCP Nexus 2020. (virtual)
31. *Kim A, Shimeshan E, Campbell J, **Devine B**, Bansal A. Characterizing the healthcare resources utilization and costs in patients with geographic atrophy secondary to age-related macular degeneration stratified by disease severity. ISPOR 2020 (virtual)
32. *Ta JT, Sullivan SD, Tung A, Oliveri D, Gillard P, Devine B. Healthcare Resource Utilization and Costs Associated with Non-Adherence and Non-Persistence to Antidepressants for Major Depressive Disorder. Poster presented at AMCP 2020, Houston, TX (April 21-24, 2020). Gold Medal Award.
33. *Woodbury, R. B., Hiratsuka, V., & Devine, B. *Direct-to-Consumer Genetic Testing among Alaska Native and American Indian People: Preliminary Results on Use, Knowledge and Impacts* [Poster presentation]. Harvard Annual Bioethics Conference, Boston, MA, March 2020, <https://bioethics.hms.harvard.edu/events/annual-bioethics-conference> (poster; Conference Cancelled)
34. *Beal B, **Devine B**. CRISPR and the Value of a Cure for Leber Congenital Amaurosis. UW Corporate Advisory Board Meeting, Seattle, WA. September 2019.
35. *Lee J, **Devine B** Real world evidence for the use of onabotulinum toxin in patients with chronic migraine with migraine-related comorbidities and special populations. UW Corporate Advisory Board Meeting, Seattle, WA. September 2019
36. Vickers A, Nag A, **Devine B**, Sands BE, Panaccione R, Peyrin-Biroulet L, Danese S, Vermeire S, Gorelick KJ, Goetsch M, Hartley L. Induction of endoscopic response: a network meta-analysis of induction studies comparing ontamalimab with other treatments for moderate-to-severe ulcerative colitis. *J Crohn Colitis* 2020;14 Suppl 1:S410–411
37. Vickers A, Nag A, **Devine B**, Sands BE, Panaccione R, Peyrin-Biroulet L, Danese S, Vermeire S, Gorelick KJ, Goetsch M, Hartley L. Induction of response and remission: a network meta-analysis of induction studies comparing ontamalimab with other treatments for moderate-to-severe ulcerative colitis. *J Crohn Colitis* 2020;14 Suppl 1:S327–328.
38. *Ta JT, Roth J, Devine B, Garrison L. “Net Health Benefit” – ASCO vs. ICER Value Frameworks: Are We Talking about the Same Thing? ISPOR 2019, New Orleans, LA. May 18-22, 2019.
39. *Kim A, **Devine B**, Rosh JA. 55th Annual Meeting, American Society of Clinical Oncology, Chicago, IL May 2019 (online)
40. Hardy VE, Suchsland MLZ, Jarvik JG, Haines R, Brittain A, Kurth D, Rawson JV, **Devine B**, Lavalley DC, Fitzpatrick AL, Thompson MJ. Are patient-centered outcomes reported in the imaging literature? A secondary analysis of the American College of Radiology Appropriateness Criteria. Radiological Society of North America (RSNA) Annual Meeting, Chicago, IL, November 2018
41. *Hart MG, Devine B. Using real-world pharmacogenomics knowledge resources to guide clinical decision-making. American Society of Human Genetics Annual Meeting. San Diego, CA, October 2018
42. Thompson M, Zigman-Suchsland M, Hardy V, Jarvik J, Fitzpatrick A, **Devine EB**, Lavalley D, Findlay S. Patient-Centered Outcomes of Diagnostic Tests: What Can We Learn from Imaging Testing? Society for Medical Decision Making, Montreal, Quebec, October 2018
43. *Chin L, Yu J, **Devine EB**. Comparative Effectiveness of Agents Used As Monotherapy for the Treatment of Pulmonary Arterial Hypertension: A Systematic Review and Network Meta-Analysis. Society for Medical Decision Making, Montreal, Quebec, October 2018
44. *Ta JT, **Devine B**. Impact of Antidepressant Non-adherence and Non-Persistence on Healthcare Resource Utilization and Costs in Major Depressive Disorder: A Systematic Review. UW Corporate Advisory Board Meeting, Seattle, WA. September 2018.
45. *Kim A, **Devine B**. Clinical and economic burden of geographic atrophy secondary to age-related macular degeneration. UW Corporate Advisory Board Meeting, Seattle, WA. September 2018.
46. Zigman-Suchsland ML, Hardy V, Thompson MJ, Lavalley DC, **Devine BE**, Jarvik JG, Findlay S, Fitzpatrick A. Advancing Patient Centeredness: Which Patient Outcomes are Important for Imaging Tests? AcademyHealth, Seattle, WA, June 2018.

47. *Bounthavong M, Harvey MA, Christopher MLD, Basu A, Veenstra DL, **Devine EB**. Impact of academic detailing on opioid overdose risk in the U.S. Veterans Health Administration. American Society of Health Economics, Atlanta, GA, 2018
48. *Bounthavong M, Christopher MLD, Basu A, Veenstra DL, **Devine EB**. Is naloxone prescribing behavior associated with providers' perception with academic detailing and opioid overdose education? AcademyHealth Annual Research Meeting, Seattle, WA, 2018
49. *Ike C, **Devine B**. Cost-utility analysis of oral ergotamine/cafeine versus oral sumatriptan in the treatment of acute migraine attacks. International Society for Pharmacoeconomics and Outcomes Research 23rd Annual International Meeting, Baltimore, MD. May 2018.
50. *Higa S, **Devine B**. Cost-utility analysis of initial treatment with apremilast versus methotrexate in systematic-naïve patients with plaque psoriasis. International Society for Pharmacoeconomics and Outcomes Research 23rd Annual International Meeting, Baltimore, MD. May 2018.
51. *Hendrix N, Adamson B, Basu A, **Devine B**. Increasing trend toward reporting significant digits in utility weights – behavior implications of “Flat-of-the-Curve” medicine. International Society for Pharmacoeconomics and Outcomes Research 23rd Annual International Meeting, Baltimore, MD. May 2018.
52. *Wang WJ, **Devine EB**, Bansal A, White HS, Basu A. Meta-Analyzing Count Events over Varying Durations Using the Convolved Poisson Model: The Case for Post Stroke Seizures. Society for Medical Decision Making, Pittsburgh, PA, October 2017
53. *Hendrix N, Simon N, **Devine B**. Funder effects on reporting of health-state utilities. UW Corporate Advisory Board Meeting, Seattle, WA. (September 2017).
54. *Ike C, **Devine B**. Treatment Patterns, Switching, and Cycling in the Setting of Acute Migraine. UW Corporate Advisory Board Meeting, Seattle, WA. September 2017.
55. *Higa S, **Devine B**. Psoriasis treatment patterns: a systematic review. UW Corporate Advisory Board Meeting, Seattle, WA. September 2017.
56. *Bounthavong M, Harvey MA, Lau MK, Christopher MLD, Veenstra DL, Basu A, **Devine B**. Impact of a Veterans Affairs National Academic Detailing Service on Opioid Overdose Education & Naloxone Distribution, and Opioid & Psychotropic Drug Safety Initiatives. UW Corporate Advisory Board Meeting, Seattle, WA September 2017.
57. Mercieca-Bebber R, Langford A, Rutherford C, Busija L, Tinsley M, Tait MA, Roberts N, Vodicka E, **Devine B**. A systematic scoping review of the Australian New Zealand Clinical Trials Registry for trials with patient-reported outcome endpoints. International Society of Quality of Life Research 24th Annual Meeting, Philadelphia, PA October 2017
58. *Holmes JT, Fore ME, Force RW, **Devine B**. Integrated Clinical Telepharmacist Delivered Chronic Disease Management in Rural Primary Care Clinics. Patient-Centered Outcomes Research Partnership, Seattle, WA July 2017
59. *Hart R. Projected Cost-effectiveness for Two Gene-Drug Pairs using a Multi-Gene Panel for Patients undergoing Percutaneous Coronary Intervention. International Society for Pharmacoeconomics and Outcomes Research 22nd Annual International Meeting, Boston, MA May 2017
60. *Shapouri, S, **Devine B**. Cost-utility analysis of outpatient dalbavancin for acute bacterial skin and skin structure infections (ABSSSI) versus inpatient vancomycin followed by oral linezolid. International Society for Pharmacoeconomics and Outcomes Research 22nd Annual International Meeting, Boston, MA May 2017
61. *Serbin M, **Devine B**. Estimating the economic impact of open-angle glaucoma therapy options: A systematic review. International Society for Pharmacoeconomics and Outcomes Research 22nd Annual International Meeting, Boston, MA May 2017
62. *Wang WJ, Basu A, **Devine B**. Meta-analyzing time-specific events using compound Poisson Process: The case for post-stroke seizures. International Society for Pharmacoeconomics and Outcomes Research 22nd Annual International Meeting, Boston, MA May 2017
63. *Baradaran S, Black DJ, Keyloun KR, Hansen RN, Gillard PJ, **Devine EB**. The Impact of Acute Kidney Injury (AKI) on the Risk of Mortality and Healthcare Utilization Among Patients Treated with Polymyxins for Severe Gram-Negative Infections. American Society for Microbiology, ASM Microbe, New Orleans, LA, June 2017
64. *Chin L, Yu J, **Devine B**. Comparative Effectiveness of Agents Used as Monotherapy for the Treatment of Pulmonary Arterial Hypertension: A Systematic Literature Review and Network Meta-Analysis. ASHP Midyear Clinical Meeting, Las Vegas, NV, December 2016

65. *Chin L, Mathias PC, Hendrix N, Wang WJ, Keyloun K, Khelifi M, Tarczy-Hornoch P, **Devine B**. Leveraging a Clinical Data Repository to Characterize the Landscape of Pharmacogenomic Biomarker-Guided Medication Use. Academy of Managed Care Pharmacy (AMCP) Nexus, October 2016
66. *Serbin M, **Devine B**. Estimating the Economic Impact of Open-Angle Glaucoma Therapy Options: A Systematic Review. UW School of Pharmacy Corporate Advisory Board, Seattle, WA, September 2016
67. *Shapouri S, Keyloun K, **Devine B**. Prediction Model for 30-Day Hospital Readmissions or Emergency Department Revisits Among Patients with Acute Bacterial Skin and Skin Structure Infections (ABSSSI): A Literature Review. UW School of Pharmacy Corporate Advisory Board, Seattle, WA, September 2016
68. *Buckley SA, Wood BL, Othus M, Hourigan CS, Malagola M, Kanakry CG, Ustun C, **Devine B**, Walter RB. The Effect of Measurable Residual Disease at the Time of Allogeneic Hematopoietic Cell Transplantation on Outcomes in Patients with Acute Myeloid Leukemia: a Meta-Analysis. 58th American Society of Hematology Annual Meeting and Exposition, San Diego, CA December 2016.
69. *Baradaran S, Chin L, Keyloun K, Pham J, Canestaro WJ, **Devine EB**. Clinical evidence supporting pharmacogenomic biomarker testing provided in US Food and Drug Administration drug labels. International Society for Pharmacoeconomics and Outcomes Research 21st Annual International Meeting, Washington DC May 2016.
70. *Canestaro WJ, **Devine EB**, Sullivan SD, Bansal A, , Carlson JJ. Predictors of publication bias for biomedical research. International Society for Pharmacoeconomics and Outcomes Research 21st Annual International Meeting, Washington DC May 2016
71. *Hendrix N, **Devine EB**. Deriving utility weights from patient-reported outcomes in epilepsy. International Society for Pharmacoeconomics and Outcomes Research 21st Annual International Meeting, Washington DC May 2016
72. *Tung A, Hepp Z, Bansal A, **Devine EB**. Characterizing health care utilization, direct costs, and comorbidities associated with interstitial cystitis: A retrospective claims analysis. International Society for Pharmacoeconomics and Outcomes Research 21st Annual International Meeting, Washington DC May 2016
73. *Shih V, Campbell J, Devine B. The association between onset of self-reported vision impairment and nursing home residence in an older US population. Association for Research in Vision and Ophthalmology, Annual Meeting, Seattle, WA, May 2016
74. Butler M, **Devine EB**, Hamm MP, Kahwati LC, McPheeters ML, Miles JNV, Morton SC, Murad MH, Viswanathan M. Selecting analytic approaches for systematic reviews of complex interventions. Cochrane Colloquium 2015, Vienna, Austria, October 2015 (presented by M. Viswanathan)
75. *Baradaran S, Keyloun K, Chin L, Pham J, Canestaro WJ, **Devine B**. Clinical evidence supporting pharmacogenomic biomarker testing provided in US Food and Drug Administration drug labels: An Update. UW School of Pharmacy Corporate Advisory Board, Seattle, WA, September 2015
76. *Tung A, Hepp Z, **Devine B**. The Economic Burden of Interstitial Cystitis in the United States: A Literature Review. UW School of Pharmacy Corporate Advisory Board, Seattle, WA, September 2015
77. Vodicka E, Kim K, **Devine EB**, Gnanasakthy A, Patrick DL. The use of patient-reported outcome instruments in clinical trials. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015
78. *Bounthavong M, **Devine EB**, Veenstra DL. A cost utility analysis of biologics for moderate-to-severe Crohn's disease: Evidence synthesis using a network meta-analysis. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015
79. *Bounthavong M, Bae Y, Kazerooni R, **Devine EB**. An evaluation of clinical remission and safety among biologics for moderate to severe Crohn's Disease: A network meta-analysis. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015
80. *Keyloun KR **Devine EB**. Estimating the cost-effectiveness of vortioxetine versus desvenlafaxine as first-line therapy for mild to moderate major depressive disorder in remitted patients. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015
81. *Shih V, **Devine EB**. Cost-effectiveness of left atrial appendage closure compared to warfarin for stroke prevention in atrial fibrillation. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015
82. *Yep T, Patel V, Sleijko JF, **Devine EB**. Comparing total and disease-specific resource use and healthcare costs for glaucoma patients before and after the index diagnosis: A retrospective claims database analysis. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015

83. *Yep T, Patel V, Sleijko JF, **Devine EB**. Comparing Total and Disease Related Healthcare Cost of Glaucoma Patients by Disease Severity: A Retrospective Claims Database Analysis. Association for Research in Vision and Ophthalmology. 2015
84. *Canestaro WJ, Forrester SF, Ho L, **Devine EB**. Drug therapy for treatment of idiopathic pulmonary fibrosis: A systematic review and network meta-analysis. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015
85. Li S, **Devine EB**. ITHS certificate in translational team science: enhancing bidirectional communication and collaboration across the translational spectrum. Association for Clinical and Translational Science, Washington DC, April 2015
86. *Kim DD, **Devine EB**. Estimating preference weights in obesity using the EQ-5D and SF-6D. Society for Medical Decision Making, 36th Annual North American Meeting, Miami, FL, October 2014 (**Lusted Prize finalist**)
87. *McDermott CL, Lockhart C, Devine EB. Systematic review and meta-analysis of directly observed therapy for treatment of hepatitis C. Society for Medical Decision Making, 36th Annual North American Meeting, Miami, FL, October 2014 (**Lusted Prize finalist**)
88. *Agapova M, **Devine EB**. Quantifying Benefits and Harms of Imaging Tests for Clinical Practice Guidelines. Vancouver Health Economics Meeting, Vancouver, BC, June 2014
89. *Chavez LJ, **Devine B**, Tefft N, Bradley KA. Health-related quality of life across the spectrum of unhealthy alcohol use in a US population sample. Academy Health, Annual Research Meeting, San Diego, June 2014
90. Slade IR, Kramer CB, Beck SJ, Cusumano M, Flum DR, Gallagher TH, **Devine EB**. Measuring the impact of interprofessional communication training on inpatient clinical adverse events: The Washington State experience. 2014 Annual Research Meeting, Academy Health San Diego, June 2014
91. *Tung A, **Devine EB**, Garrison LP. Assessing the likely cost-utility of alemtuzumab versus rabbit anti-thymocyte globulin as induction therapy for high-risk kidney transplant recipients. International Society for Pharmacoeconomics and Outcomes Research, Montreal, QC, Canada, June 2014
92. *Cizik AM, Rice K, Babigumira JB, **Devine EB**, Lee MJ. Risk factors that predict nerve injury following spine surgery. International Society for Pharmacoeconomics and Outcomes Research, Montreal, QC, Canada, June 2014
93. *Forrester, SH, Sullivan SD, **Devine EB**. Estimating the inpatient and outpatient costs of atrial fibrillation and associated adverse events. International Society for Pharmacoeconomics and Outcomes Research, Montreal, QC, Canada, June 2014
94. *Yep TD, **Devine EB**. A cost-utility analysis of CYP2D6 pharmacogenetic guided dosing versus standard dosing of risperidone for treatment of schizophrenia. International Society for Pharmacoeconomics and Outcomes Research, Montreal, QC, Canada, June 2014
95. *Hepp Z, Dodick DW, Varon SF, Gillard P, Hansen R, **Devine EB**. Persistence and switching characteristics among chronic migraine patient population: A retrospective claims analysis. Submitted to European Headache and Migraine Trust International Congress, Copenhagen, Denmark, September 2014
96. *Hepp Z, Dodick DW, Varon SF, Gillard P, Hansen R, **Devine EB**. Adherence to oral migraine preventive medications among patients with chronic migraine: analysis of a large US health insurance claims database. Academy of Managed Care Pharmacy, Tampa, FL April 2014
97. *Agapova M, **Devine EB**, Bresnahan B, Garrison LP Jr. The Challenges of Quantifying Benefits and Risks Associated with Diagnostic Imaging: A Literature Review. International Society for Pharmacoeconomics and Outcomes Research 18th Annual International Meeting, New Orleans, LA, May 2013
98. **Devine EB**, Alfonso R. Building the infrastructure for conducting pragmatic trials in a Learning Healthcare System. International Society for Pharmacoeconomics and Outcomes Research 18th Annual International Meeting, New Orleans, LA, May 2013
99. *Cizik AM, **Devine EB**, Wolf FM, Babigumira JB, Lee MJ. Systematic review and meta-analysis of open spine fusion versus minimally invasive spine fusion for the diagnosis and treatment of lumbar spine conditions. International Society for Pharmacoeconomics and Outcomes Research 18th Annual International Meeting, New Orleans, LA, May 2013
100. ***Devine EB**, Cheng MM. Using parametric survival curves to estimate progression-free survival in a network meta-analysis of treatments of chronic lymphocytic leukemia. International Society for Pharmacoeconomics and Outcomes Research 18th Annual International Meeting, New Orleans, LA, May 2013
101. ***Devine EB**, Lau B, Overby CL. Use of clinical decision support to improve adherence to national drug-laboratory monitoring guidelines. 34th Annual Meeting of the Society for Medical Decision Making, Phoenix, AZ, October 2012

102. Van Eaton E, Yetisgen-Yildiz M, Devlin R, Capurro D, **Devine EB**, Alfonso R, Flum DR, Tarczy-Hornoch P, and the SCOAP CERTAIN Corporate Authorship. Automating clinical data extraction to support comparative effectiveness research. 34th Annual Meeting of the Society for Medical Decision Making, Phoenix, AZ, October 2012
103. *Hepp Z, Forrester S, Roth J, Wirtz HS, **Devine EB**. Cost-effectiveness of a computerized provider order entry system on medication errors and adverse drug events averted. UW School of Pharmacy Corporate Advisory Board, Seattle, WA, September 2012
104. *Agapova M, **Devine EB**, Nguyen H, Inoue L, Wolf F. Comparing Results of Frequentist and Bayesian Approaches to Explore the Comparative Effectiveness of Subgroups in a Cochrane Systematic Review UW School of Pharmacy Corporate Advisory Board, Seattle, WA, September 2012
105. Flum DR, Alfonso-Cristancho R, **Devine B**, Devlin A, Farrokhi E, Kessler L, Patrick D, Sullivan SD, Tarczy-Hornoch P, Van Eaton E, Yanez ND. Developing a Comparative Effectiveness Research Translational Network: CERTAIN. (accepted for presentation at the AHRQ 2012 Annual Conference, Bethesda, MD, September
106. **Devine EB**, Van Eaton E, Yanez ND. Validation of Electronic Clinical Data for Comparative Effectiveness Research: The SCOAP CERTN Validation Study. Academy Health Annual Research Meeting, Orlando, FL, June 2012
107. *Sanderson JC, **Devine EB**, Bloudek LM, Varon SF, Sullivan SD. Patient Perceptions of Prophylaxis Therapy in Chronic and Episodic Migraine. 17th Annual International Meeting, International Society for Pharmacoeconomics and Outcomes Research, Washington DC, June 2012
108. *Lin VW, Ringold S, **Devine EB**. Comparison of ustekinumab with other biologic agents for treatment of moderate to severe psoriasis: A Bayesian network meta-analysis. 17th Annual International Meeting, International Society for Pharmacoeconomics and Outcomes Research, Washington DC, June 2012
109. *Sanderson JC, **Devine EB**, Bloudek LM, Varon SF, Sullivan SD. Patient perceptions of prophylaxis therapy in chronic and episodic migraine. 2012 Annual Meeting, American Academy of Neurology, New Orleans, LA, April 2012
110. *Sanderson JC, **Devine EB**, Bloudek LM, Varon SF, Sullivan SD. Patient perceptions of prophylaxis therapy in chronic and episodic migraine. UW, School of Pharmacy, Corporate Advisory Board Meeting, Seattle, WA, September 2011
111. *Wirtz HS, **Devine EB**, Overby CL, Lawless NM, Wilson-Norton JW. The impact of stepwise implementation of clinical decision support (CDS) alerts on clinical guideline adherence and clinical outcome laboratory measures. UW, School of Pharmacy, Corporate Advisory Board Meeting, Seattle, WA, September 2009
112. Wolf F, Nguyen H, **Devine B**. Exploring indirect effects of comparative effectiveness in a Cochrane review. 19th Cochrane Colloquium, Madrid, Spain, October 2011
113. *Gillard PJ, **Devine B**, Bloudek LM, Liu L, Varon SF, Sullivan SD. Quality of life among patients suffering from migraine: Health utility by frequency of headache days. 16th Annual International Meeting, International Society for Pharmacoeconomics and Outcomes Research, Baltimore, MD, May 2011
114. **Devine EB**, Patel R, Dixon DR, Sullivan SD. A Survey of Attitudes toward e-Prescribing Adoption in Primary Care. AMIA 2010 Annual Sympos Proc; 1024
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116. *Alfonso R, **Devine EB**, Sullivan SD. Indirect comparisons of biologic therapies in rheumatoid arthritis. 15 Annual International Meeting, International Society for Pharmacoeconomics and Outcomes Research, Atlanta, GA, May 2010
- 117.* Gillard P, **Devine EB**, Varon SF, Maglinte G, Sullivan SD. Mapping from Disease-Specific Measures to Health-State Utility Values in Chronic Migraineurs. 15 Annual International Meeting, International Society for Pharmacoeconomics and Outcomes Research, Atlanta, GA, May 2010
118. **Devine EB**, Hollingworth W, Hansen RN, Lawless NM, Wilson-Norton JL, Martin DP, Blough DK, Sullivan SD. Electronic prescribing at the point of care: A time-motion study in the primary care setting. 2009 AHRQ Annual Conference, Agency for Healthcare Research and Quality, Bethesda, MD, September 2009
119. **Devine EB**, Wilson-Norton JL, Lawless NM, Hansen RN, Fisk AW, Sullivan SD. The impact of an ambulatory CPOE system on medication errors. Washington Patient Safety Coalition: A Program for the Foundation for Health Care Quality. Sea-Tac, Washington, May 2009

120. **Devine EB**, Wilson-Norton JL, Lawless NL, Hollingworth W, Hansen RN, Fisk AW, Sullivan SD. End-users perceptions of an ambulatory electronic prescribing system. First Annual Meeting of the Agency for Healthcare Research and Quality. Washington DC, September 2007
121. *Cross JT, **Devine EB**, Kowdley KV, Sullivan SD. The cost of treating ribavirin-induced anemia in hepatitis C: The impact of using epoetin. 11th Annual International Meeting. International Society for Pharmacoeconomics and Outcomes Research. Philadelphia, PA, May 2006.
122. **Devine EB**, Hopefl AW, Wittkowsky AK. Adherence to national guidelines for the management of elevated INRs associated with warfarin therapy. 2006 ACCP Spring Practice and Research Forum, American College of Clinical Pharmacy. Monterey, CA, April 2006.
123. **Devine EB**, Wilson-Norton JL, Lawless NM, Fisk AF, Rafoth RJ. Evaluating the Impact of an ACPOE System on Process Outcomes in the Multispecialty Clinic Setting. 2004 Patient Safety Congress of the National Patient Safety Foundation. Boston, MA, May 2004.
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128. **Devine EB**, Beney J, Bero LA. Equity and accountability: successful use of the contributorship concept in a multi-site study. Fourth International Congress on Peer Review in Biomedical Publication. Barcelona, Spain, September 2001.
129. **Devine EB**, Hakim Z, Green J. Selection of instruments for measuring sleep dysfunction. Drug Information Association Eighth Annual Symposium of Contributed Papers "Quality of Life Evaluation". Hilton Head, SC, March 2001.
130. Beney J, **Devine EB**, Bero LA. The effect of clinical pharmacist's telephone follow-up on cancer patients' symptoms and quality of life: a randomized controlled trial. 29th European Symposium on Clinical Pharmacy; Basel, Switzerland, October 2000
131. **Devine EB**, Kowdley KV, Sullivan SD, Veenstra DL. Management strategies for ribavirin-induced hemolytic anemia in the treatment of hepatitis C: clinical and economic implications. *Value in Health*. 2000;3(2):121.
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134. *Choy M, Winter ME, **Devine B**. Utilizing a Mass Balance Algorithm and the Phenda Computerized Program to Predict Phenytoin Plasma Levels in the Neurosurgery Patient. ASHP Midyear Clinical Meeting. 28 (Dec):p P-111(E). 1993.

Student Dissertations and Theses, unpublished

1. Cai K. Healthcare resource use and costs associated with chronic migraines vs. non-migraine controls and episodic migraines vs. non-migraine controls. University of Washington ProQuest Dissertations Publishing, 2021. 28722180 (MS thesis).
2. Ike C. Treatment patterns, discontinuation and switching of acute medications for migraine: A cross-sectional survey. ProQuest Dissertations Publishing, 2018. 10837006. (MS thesis)
3. Lee CJ. A Knowledge-based System for Intelligent Support in Pharmacogenomics Evidence Assessment: Ontology-driven Evidence Representation, Retrieval, Classification and Interpretation. University of Washington, ProQuest Dissertations Publishing, 2016. 10138583 (PhD dissertation)
4. Cizik AM. Variations in Surgeon Treatment Preferences and The Impact on the Cost-Utility of Surgery for Soft Tissue Sarcoma. University of Washington, ProQuest Dissertations Publishing, 2016. 10193942 (PhD dissertation)
5. Shih V, Campbell J, **Devine B**. The association between onset of vision impairment and functional limitations and informal caregiving requirements in older Americans, 2015 (MS thesis)

6. Yep TD. Total and Disease Specific Resource Use and Healthcare Cost of Patients with Glaucoma. University of Washington. ProQuest Dissertations Publishing, 2014. 1567626 (MS thesis)

7. Forrester SH. Estimating the inpatient and outpatient costs of atrial fibrillation and associated adverse events University of Washington. ProQuest Dissertations Publishing, 2013. 1542367 (MS thesis)

8. Farrokhi E. Building a Learning Healthcare Network: The transition of the Vascular Interventional Surgical Care Outcomes Assessment Program to the Comparative Effectiveness Research Translation Network (VI SCOAP to CERTAIN). University of Washington. ProQuest Dissertations Publishing, 2013. 1542363 (MS thesis)

Continuing Education Monographs

1. **Devine B**, Eaton M, Lofholm P, Shane R, Shreve M, Simonian R (editors). Expanding pharmacy practice roles: The challenge and opportunity of SB 1759. A continuing education workbook. The Enright Group. Bethlehem, PA, 1996.

2. **Devine B**, Ellis W, Glass S, Maiuro J, Miller TA, Russell W, Vaida A (editors). Successful models in pharmaceutical care. A continuing education workbook and video. Marion Merrell Dow, Inc., 1995.

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Internal Publications

1. **Devine EB**, Louie C. UCSF pharmacy faculty practice consortium: A plan for optimizing medication use in physician group practices. MBA thesis. University of San Francisco, McLaren School of Business. May 7, 1999.

2. **Devine B**, Guglielmo BJ, Shahkarami M. (editors) . Handbook of Antimicrobial Therapy. The Medical Center at UCSF, UCSF-Mount Zion Medical Center, San Francisco General Hospital, Veterans Affairs Hospital of San Francisco. Developed in collaboration with the Departments of Pharmaceutical Services and the Divisions of Infectious Diseases at each campus, the UCSF and UCSF-MZ Pharmacy and Therapeutics Committee, and the UCSF School of Pharmacy. Published by the UCSF School of Pharmacy, 1999.

3. **Devine B**, Guglielmo BJ, McCart G, Tsourounis C, (editors). *P and T Forum*. Newsletter of the Hospital Pharmacy and the Pharmacy and Therapeutics Committee. The Medical Center at UCSF and UCSF-Mount Zion Medical Center. San Francisco, CA, 1995 – 1999.

4. **Devine B**, McCart G, Tsourounis C (editors). *ADR Alert*. Newsletter on Adverse Drug Reactions of the Hospital Pharmacy and Pharmacy and Therapeutics Committee. The Medical Center at UCSF and UCSF-Mount Zion Medical Center. San Francisco, CA, 1995-1999.

Articles in Proceedings

Devine B, Kroon L. Preparing for a joint commission survey. Update on quality improvement; A special report from the 31st ASHP Midyear Clinical Meeting, December 1996. *Bayer Quality Network*, 1997;6-7.

Reports

1. Lee W, Dayer T, Jiao B, Carlson J, **Devine B**, Veenstra DL. The use of real-world evidence in economic assessments of pharmaceuticals in the US. University of Washington Corporate Advisory Board Meeting, September 2019.

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3. Segal J, **Devine EB**, Garrison LP, Gagnon JP. Curricular Advances for patient-centered comparative effectiveness research: A conference report. Conference Proceedings. Johns Hopkins School of Medicine, UW Pharmaceutical Outcomes Research & Policy Program, Pharmaceutical Research & Manufacturers Association Foundation, 2014.

4. **Devine B** (contributor). Streamlined FDA drug review puts drug information services and P & T committees to the test. *ASHP Specialists Spectrum*, Summer 1997.

5. **Devine B** (contributor). Update on state prescribing authority. Flanagan ME. *American Pharmacy*. 1995;NS35:13-23

6. **Devine B** (contributor). Obtaining prescribing authority for pharmacists: Lessons learned. Wittenburg ASJ. *Am J Health-System Pharm*. 1995;52:1616-24.

7. **Devine B** (contributor). Pharmacists throughout the U.S. Call for expanded prescribing authority. *Pharmacy Practice News*, September 1994.

Letters to the Editor

Devine, B. Collaborative drug therapy management in California: Clarification. *ASHP Specialists' Spectrum*, Winter 1997.

Invited Interviews

1. HTA requirements of real-world evidence derived from [hospital data](#) to be used for policy decision making. EU Horizon funded ONCOVALUE consortium, the Netherlands Cancer Institute leading a work package concerning '*Future-proof HTA framework based on hybrid RWD collection*'. PIS: Wim van Harten and Valesca Retèl). The goal of the work package is to empower and guide cancer clinics/hospitals in the collection, harmonization, and real-time analysis of high-quality Real-World Data (RWD), February 2024.
2. Foley KE, Gardner L. What to know about looming FDA decision on first gene-editing therapy. Interview with POLITICOPRO and POLITICO Prescription Pulse. about upcoming FDA decision on approval of exo-cel, the first gene editing therapy for Sickle Cell Disease. November 28, 2023.
3. De la Cruz-Sánchez E, Moreno-Llamas A, García-Mayor J, Mendiola-Olivares J, Torres-Cantero A, **Devine B**. Estimating the association between Covid-19 sources of information, beliefs, and vaccination rates: Results from an EU-wide survey. *Eur J Public Health*. 2023 33:897-904. doi: 10.1093/eurpub/ckad115. The Scientific and Cultural Unit, University of Murcia, Murcia, Spain. Available at: <https://www.um.es/web/ucc/-/un-estudio-de-la-umu-pone-de-relieve-que-las-redes-sociales-lastran-el-éxito-de-las-campañas-de-vacunación-en-europa/1.0?redirect=%2Fweb%2Finvestigacion%2F>. October 17, 2023. Followed on October 18, 2023 with an interview with dr. De la Cruz Sanchez on Murcia 7, regional television: <https://www.la7tv.es/video/informativo-tarde/7-noticias-edicion-tarde-18-10-23/20231019082415026666.html>
4. Devine B. Remote Patient Monitoring. An interview with Hospital Case Management, Relias Media of Raleigh, N.C. June 2022.
5. Wilson-Norton JL, Devine EB. Clinic Launches New e-Prescribing System. AHRQ 411 Podcast. September 26, 2007. <http://healthcare411.ahrq.gov:80/podcast.aspx?id=271>. Accessed November 16, 2007
6. Pizzi R. CPOE and Patient Safety. Healthcare IT News. September 2007 <http://www.healthcareitnews.com:80/story.cms?id=7678>. Accessed November 16, 2007 (EB Devine, interviewee)
7. Devine EB, Wilson-Norton JL. Quality Metrics in the Context of HIT Implementation and Evaluation. An interview conducted by the Center for Information Technology Leadership. August 2007 (no report available)
8. Devine EB, Wilson-Norton JL. Quality Metrics in the Context of HIT Implementation and Evaluation. An interview conducted by the AHRQ National Resource Center. AHRQ National Resource Center for Health Information Technology, July 2007

Lay Press

1. Revascularization better for peripheral arterial disease. UW Health Sciences NewsBeat and UW Today, August 17, 2016. Available from URL: <http://hsnewsbeat.uw.edu/story/revascularization-better-peripheral-arterial-disease>
2. Effectiveness of a medical vs revascularization intervention for intermittent leg claudication based on patient-reported outcomes. JAMA Network, August 17, 2016. Available from URL: http://archsurg.jamanetwork.com/article.aspx?articleid=2542658&utm_source=jps&utm_medium=email&utm_campaign=author_alert-jamanetwork&utm_content=author-author_engagement&utm_term=1m and Overview of attention for article published in JAMA Surgery, August 2016. Available from URL: <https://jamanetwork.altmetric.com/details/10617752>
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4. Leg Cramps? Greater gains in QoL after revascularization. MedPage Today, August 19, 2016. Available from URL: <http://www.medpagetoday.com/cardiology/peripheralarterydisease/59774>
5. Medical Rx vs. revascularization in patients with intermittent claudication. Monthly Prescribing Reference, August 18, 2016. Available from URL: <http://www.empr.com/news/medical-rx-vs-revascularization-in-patients-with-intermittent-claudication/article/517017/>
6. Hersh WR, Totten AM, Eden KB, Devine B, Gorman P, Kassakian SZ, Woods SS, Daeges M, Pappas M, McDonagh MS. HIE Requires More Research to Demonstrate Effectiveness. HealthData Management. Monday, December 28, 2015. Available from URL: <http://www.healthdatamanagement.com/news/hie-requires-more-research-to-demonstrate-effectiveness>
7. Hersh WR, Totten AM, Eden KB, Devine B, Gorman P, Kassakian SZ, Woods SS, Daeges M, Pappas M, McDonagh MS. Studies on HIE benefits few and far between. FierceHealthIT. Friday, December 18, 2015. Available from URL: <http://www.fiercehealthit.com/story/studies-hie-benefits-few-and-far-between/2015-12-18>
8. Hersh WR, Totten AM, Eden KB, Devine B, Gorman P, Kassakian SZ, Woods SS, Daeges M, Pappas M, McDonagh MS. HIE use definitely rising; impact less clear. Modern Healthcare. Friday, December 18, 2015. Available from URL: <http://www.modernhealthcare.com/article/20151218/NEWS/151219860>

9. Publication recognized with press release from ISPOR: *Forrester S, Hepp Z, Roth J, Wirtz HS, Devine EB. Cost-effectiveness of a computerized provider order entry system in improving medication safety in ambulatory care. Value Health, May 2014*
10. May M. 2011 Year in Review. Bioscience Technology. Available at: www.BioscienceTechnology.com. December 2011
11. Dash H and Fisk A. A prescription for improving medication safety. (The Everett) HeraldNet. August 5, 2006. Available from URL: <http://www.heraldnet.com/stories/SWPrintIT.cfm?page=http%3A%2F%2Fwww%2Eheraldnet>. (archived)
12. Electronic prescribing at The Everett Clinic. The Everett Clinic Connection. Autumn 2005. page 1
13. Ludington J. Grant enables UW School of Pharmacy to evaluate computer-prescribing technology. The Daily, of the UW. November 29, 2004 page 1
14. Mandt L. Everett Clinic uses grant to reduce prescription mistakes. The Everett Tribune. November 24, 20004. page 6
15. HHS awards grant to study computerized prescribing. iHealthBeat. November 19, 2004. Available from URL: <http://www.ihealthbeat.org/index.cfm?Action=dspltem&itemID=107521> (archived)
16. School of Pharmacy and Everett Clinic test computerized prescribing. University Week, UW. November 18, 2004. Page 14
17. Salyer S. Clinic pioneers new Rx system. (The Everett) HeraldNet. November 17, 2004 Available from URL: <http://www.heraldnet.com/stories/SWPrintIT.cfm?page=http%3A%2F%2Fwww%2Eheraldnet>. (archived)
18. Schwarzen C. Clinic, school receive federal grant. The Seattle Times. November 17, 2004. page B2.

INVITED LECTURES, SEMINARS, WORKSHOPS and PODCASTS (1999 – present)

International

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| 2026 | <p>"Beyond the forest plot: Evidence synthesis as a tool for global health policy". Advancing Collaboration, Translation, and Innovation for Value in Evidence Synthesis (ACTIVES) Hub Workshop, Naresuan University, Thailand. (July)</p> <p>KEYNOTE: "Evidence for action – Aligning synthesis with global health policy frameworks". Advancing Collaboration, Translation, and Innovation for Value in Evidence Synthesis (ACTIVES) Hub Research Collaboration Networking Meeting, Naresuan University, Thailand. (July)</p> <p>"Value-based healthcare from Global perspectives to action". Chaing Mai University, Thailand. (July)</p> <p>Office of Health Economics, London, UK (July)</p> <p>Topic 1. "The LATITUDES Network: A library of assessment tools and instruments used to assess data validity in evidence syntheses".</p> <p>Topic 2. "ISPOR Today".</p> <p>Inaugural speaker: First Annual Symposium, The Bristol Evidence synthesis, Appraisal and Modelling (BEAM) Centre. (June)</p> <p>Topic 1. "The LATITUDES Network: A library of assessment tools and instruments used to assess data validity in evidence syntheses".</p> <p>Topic 2. "The impact of adding bias-adjusted non-randomized studies of interventions to randomized trials in network meta-analyses".</p> <p>Topic 3. "ISPOR Today".</p> <p>"Beyond Black Boxes: Case Studies of Transparent, Validated LLM Workflows for Accelerating Global HTA Submissions and Decisions". With Lockwood Taylor, Tim Reason, Bill Malcolm. Spotlight session, ISPOR International Meeting, Philadelphia, PA (May)</p> |
| 2025 | <p>"Beyond the QALY: Alternatives in the US and Implications for EU". With Anirban Basu, Varun Ektare, Jordan Banks. Workshop at ISPOR Europe 2025-Glasgow (November)</p> |
| 2024 | <p>"Implementation of pharmacogenomic clinical decision support for health systems: a cost-utility analysis". Pharmacogenomics Global Research Network. (virtual, November)</p> <p>"Addressing Key Challenges in the Setting of Tumor-Agnostic Drugs: Meeting an Unmet Need?" With Dan Ollendorf, Emma Mackay, Yilin Chen. Workshop at ISPOR-Atlanta (May)</p> |

- “ Ensuring Study Validity to Inform Health Technology Assessments Globally: The LATITUDES Network. Department for Evidence-based Medicine and Evaluation”. Danube University KREMS, Austria. (virtual, May)
- UW *Pharmacy Fridays*. “Pharmacogenomics”. Joint recording with Ken Thummel, PhD (UW Department of Pharmaceutics) and Erica Woodahl, PhD (University of Montana, School of Pharmacy) (March) (podcast)
- 2023 Fulbright Scholar Spotlight on Spain Webinar. Institute of International Education, US Department of State (virtual, May)
- 2023 & 2024 “CHOICE Executive Series in Conveying Knowledge (CHECK). UW Health Technology Fund Consortium, Corporate Advisory Board Training in Data Science. Workshop led by Anirban Basu, Beth Devine, Aasthaa Bansal. Seattle, WA (September)
- 2022 “Digital Health, Artificial Intelligence, & Remote Patient Monitoring.” Presentation to Alexion Global Health Economics and Outcomes Research, Astra Zeneca Rare Disease Group. HTA Journal Club. (virtual, August)
- “Compounding complications: Synthesizing harms across the evidence pipeline”. with Riaz Qureshi, Evan Mayo-Wilson, Dawid Pieper Society for Research Synthesis Methodology Annual Meeting, Portland, OR (Moderator; July)
- 2021 “Assessment of Payers’ Preferences for Real World Evidence: A Discrete Choice Experiment”. Genentech Evidence for Access (E4A). (virtual, with Enrique Saldarriaga) (May)
- 2018 “HTA 3-Day International Training Program”. International Society for Pharmacoeconomics and Outcomes Research, Princeton, NJ. 30 attendees. (with Lou Garrison, Finn Børlum Kristensend and Zoltán Kaló) (June)
- “Using online real world evidence tools to enhance formulary decision-making”. Academy of Managed Care Pharmacy Nexus Meeting, Orlando, FL (October) (with Jennifer Graff, Sophia Yun, Shuxian Chen and Jamie Ta)
- 2017 “Literature Evaluation and the Comparative Effectiveness Research Collaborative”, UW Chapter, Academy of Managed Care Pharmacy, Pharmacy & Therapeutics Competition Workshop (with Lauren Chin, PharmD)
- “Curricular Advances for patient-centered comparative effectiveness research”.
A National Invitational Conference.
Member, Conference Planning Committee (along with Glen Schumock, Simon Pickard, Eleanor Perfetto)
The Pew Charitable Trust Conference Center, Washington DC (January-February)
- 2016 “Network Meta-Analysis in HTA and CER”. ISPOR National Student Network. (Webinar Speaker, March 2016)
- 2015-2019 “Patient Centered Outcomes Research Partnership (PCORP) - AHRQ R25” (PI: Kessler)
Faculty Co-Lead (with Kessler, Patrick, Bresnahan, Nelson)
Weeklong Summer Institute to train junior investigators and clinicians in CER/PCOR
UW (July)
- 2014 “Curricular Advances for patient-centered comparative effectiveness research”.
A National Invitational Conference.
Conference Co-lead (with Jodi Segal, MD, MPH, from Johns Hopkins and Lou Garrison, UW PORPP)
The Pew Charitable Trust Conference Center, Washington DC (January)
- 2013 “Methods for Outcomes Research”.
Workshop Leader/ Training Program (unable to participate due to eldercare obligations for one of my parents)
Sheikh Hamdan bin Rashid Al Maktoum Award for Medical Sciences
Dubai, United Arab Emirates (November)
- 2011 “Methods for Indirect and Mixed Treatment Comparisons: Tools for Assessing Health Technologies in the Absence of Direct Evidence”
Workshop Leader/Speaker (with Rafael Alfonso and Ximena Burbano)
ISPOR 3rd Latin America Conference, Mexico City, Mexico (Panelist; September)
- 2010 “Indirect/Mixed Treatment Comparisons in Comparative Effectiveness Research”
Workshop Leader/ Training Program (4 hours)
Bayer HealthCare Pharmaceutical, Inc., Health Economics & Outcomes Research Group, New Jersey (November)
- “Indirect/Mixed Treatment Comparisons in Comparative Effectiveness Research”

	Workshop Leader/ Training Program (4 hours) Allergan Global Health Outcomes Strategy and Research (GHOSR), Irvine, CA (May)
<u>National</u> 2023	"Using MCDA methods to compare patient and provider preferences for lower limb amputations". University of Illinois Chicago, School of Pharmacy. September (in person) Topic 1: "Introducing the LATITUDES Network: Finding the Right Risk of Bias Tool Fit for Purpose"; Topic 2: "Casual Inference Designs for Non-randomized Studies of Interventions in Systematic Reviews" ARHQ Evidence-based Practice Center Annual Meeting, joint with the US Cochrane Collaboration (May, hybrid)
2022	"The Role of Comparative Effectiveness Research in Drug Pricing" Centers for Medicare and Medicaid Services, Medicare Drug Rebate and Negotiation Group at CMS, tasks with implementing drug price negotiations for Medicare (virtual, November)
2021	"Life-Long Care Costs of SCD", presenting for the Clinical and Economic Impact Analysis (CEIA). 15th Annual Sickle Cell Disease Research & Educational Symposium and 44th National Sickle Cell Disease Scientific Meeting. Panel 1: The Economic & Financial Impact of Sickle Cell Disease. Virtual (May)
2020	"CuresSCI Clinical and Economic Impact Analysis (CEIA) Consortium, Year 1 Update. Presented to the NHLBI CureSCI Executive Committee, virtual, with Anirban Basu (October) "Cost-effectiveness Analysis Update". On behalf of the CuresSCI Clinical and Economic Impact Analysis (CEIA) Consortium. Presented to the NHLBI CureSCI Expert Panel, virtual (September) "Cancer Health Assessment Reaching Many (CHARM), Healthcare resource use, historical data analysis". Clinical Sequencing Evidence Generating Research (CSER 2) Consortium Fall 2020 Virtual Meeting (October)
2019	"Pharmacogenetic testing: The economics of personalized medicine". Day of Science Keynote Address, American Pharmacists Association Annual Meeting and Exposition, Seattle, WA (March) (with Kristin (Weitzel) Wiisanen)
2014	"Preparing electronic clinical data for quality improvement and research: The CERTAIN validation project." PCORI Distributed Data Analysis Workshop", for the PCORI CER Methods and Infrastructure Program, Washington DC (Workshop Speaker, December) "Toward the Implementation of Pharmacogenomic Care Guidance within Healthcare Settings". 2014 First Databank & Zynx Health Conference, Miami Beach, FL (Speaker, November) "Spending Resources Wisely, Lean and Green: Streamlining Your Practice to Reduce Cost in the Era of Environmental Awareness", panelist with Alseidi A, Paluch T, Klaristenfeld D, Farrokhi E. American College of Surgeons Clinical Congress, San Francisco, CA (Panelist, October) "Preparing electronic clinical data for quality improvement and research: The CERTAIN validation project." Electronic Data Methods Forum of Academy Health, 2014 Annual Research Meeting, San Diego, June 2014 (panel presentation by Devine for the CERTAIN Collaborative) "Achieving and sustaining automated health data linkages for learning systems: barriers and solutions." Electronic Data Methods Forum of Academy Health, 2014 Annual Research Meeting, San Diego, June 2014 (panel presentation by Devlin for the CERTAIN Collaborative) "Preparing a workforce skilled in PCOR and CER. Health Services Research Consortium Breakfast. 2014 Annual Research Meeting, Academy Health, San Diego CA (Panelist, June)
2013	"The CERTAIN Automation and Validation Project." Academy Health, Electronic Data Methods Forum, Baltimore, MD (panelist; June) "Integrating patient experience in QI efforts" (with Erin Holve and Wilson Pace) 14 th Annual International Summit on Improving Patient Care in the Office Practice and the Community. Institute for Healthcare Improvement, Scottsdale, AZ (Panelist; April) "Incorporating patient reported outcomes into continuous quality improvement efforts" CMS Measures Forum. Centers for Medicare and Medicaid Services, Quality Measures and Health Assessment Group, Office of Clinical Standards and Quality. Webinar speaker. (Panelist; January) CERTAIN: A Learning Healthcare System Network. EDM Forum Site Visit, Seattle, WA (Speaker; January)

	CERTAIN: A Learning Healthcare System Network. EDM Forum Steering Committee Meeting, Bethesda, MD (Speaker; January)
2012	"Design of the SCOAP CERTAIN Intermittent Claudication Study: A Case Study". 4th Annual DEcIDE Methods Symposium: From Efficacy to Effectiveness, Washington DC (Speaker; June) "Validation of Electronic Clinical Data for Comparative Effectiveness Research: The SCOAP CERTAIN Validation Study" Electronic Data Methods Forum Symposium on Building an Electronic Clinical Data Infrastructure to Improve Patient Outcomes. Academy Health Annual Research Meeting, Orlando, FL (Panelist; June)
2011	"Putting Comparative Effectiveness Research into Practice: What You Need to Know" Facilitator for a Pre-Meeting Workshop at the 46th ASHP Midyear Clinical Meeting and Exhibition. New Orleans, LA. Co-sponsored by the College of Pharmacy, University of Arizona and ASHP (Facilitator; December) "Incorporating Patient Reported Outcomes into a Prospective Cohort Study of Intermittent Claudication" EDM Forum Methods Symposium, Academy Health and AHRQ, Washington DC (Speaker; October) "Validation of electronic data for comparative effectiveness research" EDM Forum Methods Symposium, Academy Health and AHRQ, Washington DC (Speaker; October) "Advances in the Use of Electronic Clinical Data for Prospective Patient Centered Outcomes Research" AHRQ Effective Health Care Program Stakeholder Group, Washington DC (Speaker; October) "The SCOAP CERTAIN Story" Beth Devine Webinar Presenter (with Ned Calonge, Erin Holve, Gurvaneet Randhawa, John Steiner, and Adam Wilcox). Advances in the Use of Electronic Clinical Data for Prospective Patient Centered Outcomes Research. Webinar sponsored by the Electronic Data Methods Forum, Academy Health and AHRQ (Panelist; August) "The Surgical Outcomes and Assessment Program Comparative Effectiveness Research Translation Network (SCOAP CERTAIN), CER-Claudication Study and Validation Study" Presenter (with Dave Flum, Erin Holve, Peter Tarczy-Hornoch, Erik van Eaton) Site Visit by the Electronic Data Methods Forum, Academy Health and AHRQ (Speaker; June) "Transitioning from Trainee to Faculty: Building your Mentorship Network" Workshop Presenter (with Jonathan Finkelstein, Sean Sullivan and Jay Berry) AHRQ National Research Service Award (NRSA) Trainees Research Conference, Seattle, WA (June) Academy Health, Seattle, WA (Speaker; June)
2005	"Conducting Quality Practice Research while still Caring for Patients: Doing a Project – How Do I Get Started?" ASHP Research and Education Foundation, American Society of Health-System Pharmacists Midyear Clinical Meeting, Las Vegas, NV (Speaker; December)
2004	"Conducting Quality Practice Research while still Caring for Patients: Maximizing Available Resources" ASHP Research and Education Foundation, American Society of Health-System Pharmacists Midyear Clinical Meeting. Orlando, FL (Speaker; December)
<u>Regional</u>	
2021	"You Have Your 23andMe Results! Now What? Plein Public Lecture, UW School of Pharmacy, virtual (May) "Interprofessional Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities. UW School of Nursing Ambulatory Care Conference. Speakers: B. Devine, J. Wilson-Norton, K. Trivelli (April)
2020	"Microvascular Benefits of New Anti-Diabetic Agents: A Systematic Review and Bayesian Network Meta-Analysis of Renal Outcomes". UW Clear Center, Seattle, WA, with Ashley Cha and Yilin Chen. (July) "Demonstrating the Feasibility of using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities". Northwest Pharmacists Association Annual Convention. Speakers: J. Wilson-Norton, T. Mikes, L. Chaitesipaseut (May)
2019	"Demonstrating the Feasibility of using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities". Northwest Pharmacogenomics Research Network (August)

"From Evidence Synthesis to National Guidelines and Policy". Center for Health Innovation & Policy Science (CHIPS) Seminar Series, University of Washington (Speaker; April)

"Demonstrating the Feasibility of using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities". Plein Center Symposium, University of Washington, School of Pharmacy (Speaker: March) (on behalf of Wilson-Norton, Ragueneau-Majlessi, Argon, and Trivelli)

2014 "Comparative Effectiveness Research". UW ITHS Annual Bootcamp, Seattle, WA (Speaker; September)

2012 "Methods for the CERTAIN Comparative Effectiveness Study in Peripheral Artery Disease" SCOAP Vascular/Interventional Meeting, Foundation for Healthcare Quality, Seattle, WA (Speaker; July)

"SCOAP CERTAIN Spine CER Study"
SCOAP Spine Forum, Seattle WA (Speaker; March)

2011 "Evidence Synthesis and Meta-Analysis"
Seminar Speaker/Panel Discussant/Workshop Leader (with Fred Wolf, Laurie Anderson, Rafael Alfonso)
UW Institute for Comparative Effectiveness Research Training (ICERT)
UW CHASE Alliance and the Fred Hutchinson Cancer Research Center
(Speaker; approximately 7 hours – September)

2011 "Using Indirect and Multiple Treatment Comparisons Methods To Estimate Comparative Effectiveness of Alternative Treatments"
Workshop Presenter (given in absentia; delivered by Rafael Alfonso and Mindy Cheng)
ISPOR Western Pharmacoeconomic Conference, UW ISPOR Student Chapter, Seattle, WA (April)

2010 "Using Indirect Treatment Comparisons to Estimate Comparative Effectiveness"
Seminar Speaker/ Panel Discussant/ Small Group Facilitator
UW Comparative Effectiveness Research Fall Institute:
Methods and Applications of Comparative Effectiveness Research
UW CHASE Alliance and the Fred Hutchinson Cancer Research Center (Speaker; September)

2009 "Evidence Synthesis and Real-World Outcomes Studies"
Workshop Speaker, (with Linda Sturm and Sean Sullivan)
GlaxoSmithKline Training Program, Seattle, WA (Speaker; June)

2008 "CPOE and e-Prescribing: What's Here? What's Ahead?"
Current Concepts in Drug Therapy. Continuing Education Program for Primary Care Providers.
School of Medicine, UW, Seattle, WA (Speaker; May)

2007 "Improving Quality and Safety in the Medication Use Process: The Pharmacist's Role on the Team"
Northwest Regional Primary Care Association, Spring 2007 Primary Care Conference, Portland, OR (Speaker; May)

2003 "Enhancing your PharmD"
APhA-ASP Regional Midyear Meeting, Portland, OR (Speaker; November)

"A Unique Contribution: The Pharmacist's Role in Continuous Quality Improvement"
State of Washington Pharmacists' Quality Improvement Initiative: Phase 2, Qualis Health. Sea-Tac, WA (Speaker; March)

2001 "Traversing the World of Pharmacogenomics: Current Trends and Future Applications"
Pharmacy 2001: 16th Annual Meeting and Exhibition of the Washington State Society of Health-System Pharmacists, Tacoma, WA (Speaker; September)

Local

2020 "Assessment of Payers' Preferences for Real World Evidence: A Discrete Choice Experiment". UW PHENoM Seminar. (virtual, with Enrique Saldarriaga) (December)

"Cancer Health Assessment Reaching Many (CHARM), Healthcare resource use, historical data analysis". UW Precision Medicine Informatics Group, Department of Biomedical Informatics (virtual) (November)

"Demonstrating the Feasibility of using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities". UW Precision Medicine Informatics Group, Department of Biomedical Informatics (virtual) (November)

	"Demonstrating the Feasibility of using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities". Department of Pharmacy Faculty Meeting 5 in 10. (October) "Assessment of Payers' Preferences for Real World Evidence: A Discrete Choice Experiment". UW Corporate Advisory Board Meeting, Health Technology Fund Members. (virtual, with Enrique Saldarriaga) (September) "PhaRmacogEnomics Clinical Support Economic VALUE (PRECISE-VALUE) for Learning Health Systems". UW Precision Medicine Informatics Group, Department of Biomedical Informatics (virtual) (July) "Demonstrating the Feasibility of using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities". Era Living Leadership, Seattle, WA. June) "The CHOICE Real World Evidence Assessments and Needs Guidance (REAdi) tool". CHOICE Seminar, Seattle, WA, with Brenna Beal and Stanley Wang (Spring) "Developing a Multiple Criteria Decision Analysis (MCDA) in the Context of Critical Limb Ischemia". Program in Health Economics and Outcomes Research Methodologies (PHENoM). Seattle, WA, with Diana Poehler. (May)
2019	"Preferences for transtibial versus transmetatarsal amputation: A Multiple Criteria Decision Analysis. (Seminar Speaker, with Diana Poehler, PhD student in Health Services) The CHOICE Institute Seminar, UW School of Pharmacy, Seattle, WA (February)
2018 -	"Critical Literature Evaluation". AMCP Pharmacy and Therapeutics Committee Workshop, UW School of Pharmacy AMCP Chapter (November) (with Lauren Chin)
2018	"The REAdi (Real-World Evidence Assessments and Needs Guidance) Tool: A Framework for Evaluating Real-World Evidence". Seminar presented to UW School of Pharmacy Corporate Advisory Board, Seattle, WA (September) Project completed with Shuxian Chen, Anirban Basu, Aasthaa Bansal, Josh Carlson)
2017	"Critical Literature Evaluation". AMCP Pharmacy and Therapeutics Committee Workshop, UW School of Pharmacy AMCP Chapter (November) (with Lauren Chin) "Framework for Evaluating Real World Evidence in Health Technology Assessment" Seminar presented to UW School of Pharmacy Corporate Advisory Board, Seattle, WA (September) Project completed with Shuxian Chen, PhD student; Seminar delivered by Chen
2016 - 2018	"How to Select a Post-PharmD Fellowship" Seminar presented to UW Academy of Managed Care Pharmacy Student Chapter (Speaker, March/April)
2014	"Results of the CERTAIN Automation and Validation Project" Summary report presented to the Chief Medical Officer, Chief Informatics Officer, Risk and Quality Managers, Evergreen Hospital and Medical Center, Kirkland, WA (Speaker; May) "Using genetic testing to guide prescribing decisions & prevent adverse drug events: A pilot study to understand whether patients and providers are willing to participate in a cluster randomized trial." WWAMI Practice and Research Network-ITHS Annual Meeting, Seattle, WA (Speaker, March) "Methods in Comparative Effectiveness Research". Grants for Lunch series, UW School of Nursing. (Speaker, February)
2013	"UW Comparative Effectiveness Research Center of Excellence: Graduate Certificate in CER" Update for the UW School of Pharmacy Corporate Advisory Board, Seattle, WA (Speaker; September)
2011	"Validation of Electronic Clinical Data for Comparative Effectiveness Research: The SCOAP CERTAIN Validation Project" UW K-12 Scholars Seminar (Speaker; Fall)
2007	"Implementing and Evaluating an Ambulatory e-Prescribing System: A Journey, Not a Solution" UW K-12 Clinical Scholars Seminar, Seattle, WA (Speaker; October) "The Intersection of Medication Safety and Human Factors" Washington State Board of Pharmacy, Kent, WA (Speaker; October) "The Intersection of Medication Safety and Human Factors" Washington State Board of Pharmacy, Dispensing Error Sanctioning Committee, Seattle, WA (Speaker; September)

- 2007 "The Impact of Technology on Quality and Patient Safety: A Barrier or a Solution?"
Pharmacy Grand Rounds, UW, School of Pharmacy, Seattle, WA (Speaker; April)
- 2005 "Implementing CPOE in the Ambulatory Setting – The Everett Clinic"
Presented to Premera, Mountlake Terrace, WA (Speaker; September)
- "Implementing CPOE in the Ambulatory Setting – The Everett Clinic"
Third Pharmaceutical Quality Improvement Conference. UW, PORPP. Seattle, WA (Speaker; June)
- "The Everett Clinic's Perspective on Electronic Prescribing Narcotic Verification"
Washington State Board of Pharmacy, Kent, WA. (April) (co-presenter with JL Wilson-Norton and AW Fisk)
- 2003 "Medication Safety Research: Characterizing the Problem/Evaluating a Solution"
Presentation to the UW, Corporate Advisory Board. Seattle, WA (Speaker; October)
- 2003 "Quality Improvement and Patient Safety in a Medical Group"
Pharmaceutical Quality Initiatives Conference, UW, PORPP, Seattle, WA (Speaker; February)
- 2001 "Selection of Instruments for Measuring Sleep Dysfunction"
Pharmaceutical Outcomes Research and Policy Program, UW, Seattle, WA (Speaker; May)
- 1999 "The Use of Albumin versus Crystalloids in Complex Spine Surgery Patients"
Roche Global Pharmacoeconomics Group, Palo Alto, CA (Speaker; February)
- "Creating a Capital Boom to Care for the Baby Boom"
Roche Global Pharmacoeconomics Group, Palo Alto, CA (Speaker; February)

Invited Participant

National

- 2021 Risk-reducing surgery in unaffected women receiving cancer genetic testing in an integrated healthcare system. (with Sarah Knerr and Boya Guo. Clinical Sequencing Evidence-Generating Research (CSER2), Clinical Utility, Health Economics, and Policy Workgroup, virtual (April)
- 2018 NIH Collaboratory enhanced Pragmatic Clinical Trials (ePCT) Workshop, Duke University, (February) (selected by peer review process)
- 2015 "Long-term use of opioids for chronic pain"
Workshop conducted by the Patient Centered Outcomes Research Institute, Washington DC, (June)
- 2014 "Harnessing Next-Generation Informatics for Personalizing Medicine"
AMIA Annual Health Policy Invitational Meeting, Washington DC (Invited Participant; September)
- "Analytical methods for a learning healthcare system". A collaborative methods project of the Electronic Data Methods Forum. Electronic Data Methods Forum, San Deigo, CA (Participant-member of this collaborative methods project that is developing a white paper on this topic; PI: Stoto M, June)
- 2013 "Patient Reported Outcome Infrastructure"
Workshop conducted by the Patient Centered Outcomes Research Institute, Atlanta, GA (November)
- "Pragmatic Clinical Trials Workshop"
Strategic Goal Committee IV
Comparative Effectiveness Research Methods Working Group
Community Engagement Committee
NIH/NCATS Clinical and Translational Science Award (CTSA) Program, Bethesda, MD (November)
- 2012 "Hospital Transitions in Care Expert Input Forum".
Merck, Sharp and Dohme, Charlotte, NC (Invited expert participant; April)

Tenure and Promotion Reviews (external, n=6)

- 2023 Nathorn Chaiyakunapruk, PharmD, PhD
Review for promotion to Professor with tenure, University of Utah
- 2021 Ian Saldanha, PhD
Review for promotion to Associate Professor with tenure, Brown University, Providence, RI

- 2019 Wee Hwee Lin, PhD
Review for promotion to Associate Professor with tenure, Saw Swee Hock School of Public Health, Singapore
- 2019 Haesuk Park, PhD
Faculty hire, Associate Professor with tenure, University of Texas, Austin, College of Pharmacy
- 2018 Haesuk Park, PhD
Review for promotion to Associate Professor with Tenure, University of Florida College of Pharmacy
- 2015 Ethan Balk, MD, MPH
Review for promotion to Associate Professor (Research), Department of Health Services, Policy & Practice, School of Public Health, Brown University, Providence, RI
- 2007 External Referee for Marie Smith, PharmD,
Review for promotion to Chair, Department of Pharmacy Practice, University of Connecticut

Letters of Support for Colleagues for national and university-wide academic achievement awards

- 2019 Almut G. Winterstein, RPh, PhD, FISPE
Professor & Chair, Department of Pharmaceutical Outcomes and Policy
Dr. Robert and Barbara Crisafi Chair for Pharmaceutical Outcomes & Policy (POP)
Director, Center for Drug Evaluation and Safety (CoDES)
College of Pharmacy, University of Florida
for the AACP Paul Dawson Award
- C. Michael White, Pharm.D., FCCP, FCP (awarded)
Professor and Department Head of Pharmacy Practice
University of Connecticut, Storrs CT
for the University of Connecticut Board of Trustees Distinguished Professor Award (awarded)
- 2019 & 2018 Mary F. Hebert, PharmD, FCCP
Professor of Pharmacy; Adjunct Professor of Obstetrics and Gynecology
Director, UW Obstetric-Fetal Pharmacology Unit
for the ACCP Russell Miller Award

External Grant Reviewer

- 2023 Medical Research Council, Applied Global Health Research Board - MR/Y019679/1, United Kingdom
Author: Professor Mamidipudi Thirumala Krishna & University of Birmingham
"Implementation of a Safe, Equitable and Internationally Standardised Drug Allergy Management System in South Asia"
- 2019 Activity: Pre-submission review of R-01 grant proposal, intended for NIH/NCI
Wendy Xu, PhD, Assistant Professor
Health Services Management & Policy, College of Public Health, The Ohio State University
"Impacts of State Insurance Benefit Regulations on Cancer Drug Use and Costs"
- 2017 Medical Research Council, United Kingdom
Author: blinded
"Inferring relative treatment effects from combined randomized and observational data"

Other Invited Reviews

- 2023 "A two-stage meta-regression framework for precision medicine using data from clinical data research."
Subject matter expert reviewer for draft research report.
Patient-Centered Outcomes Research Institute (Summer)
- 2017 "Measuring the Context of Healing: Using PROMIS in Chronic Pain Treatment"
Manuscript number PCORI-D-17-00035
Patient-Centered Outcomes Research Institute (Spring)
- "Rating the Quality of Evidence in Reviews of Complex Interventions"
AHRQ EPC Delphi Panel
The RAND Corporation
- 2013 "CER/PCOR Data Quality Reporting Framework" (PI: Kahn, M)
Invited by the PI to provide input into a contract with the Patient Centered Outcomes Research Institute

2011 “Framework for Electronic Presentation of Patient Reported Outcomes Instruments”
Invited by Academy Health’s Electronic Data Methods Forum to provide input into development of framework

Participation in Research Consortia/Groups

Pharmacogenomics/Genomics:

2018 – 2022 Clinical Sequencing Exploratory Research 2 (CSER2)
2016 – 2024 eMERGE III and IV: EHR and Outcomes Working Groups
2016 – present Clinical Pharmacogenomics Implementation Consortium (CPIC) Informatics Working Group
2014 – present UW Precision Medicine Informatics Group

Evidence Synthesis

2020-2022 AHRQ Evidence-based Practice Center Observational Studies Methods Workgroup
2016 Cochrane Collaboration Methods Group, Patient Reported Outcomes
2016 Cochrane Collaboration Methods Group, Economics
2016-2017 AHRQ Evidence-based Practice Center Complex Interventions Methods Workgroup

Outcomes Research Methods

2020-2021 NHLBI, CureSCI Common Data Elements, Outcomes Workgroup

ISPOR Special Interest Groups (SIGs, member)

2018 – Stated Preference SIG, Personalized Medicine SIG, Statistical Methods in Health Economics and Outcomes Research SIG
As a member of these SIGs, I am periodically invited to review white papers in ISPOR’s series on Good Research Methods.

TEACHING AND MENTORING (2001-present)

Didactic – Coursemaster or Co-Coursemaster

Current

2024 - Data Science Methods for RWE in Health (HEOR DS 510)
Distance Learning Program (~ 10 students per cohort per year)
Led by The CHOICE Institute on the UW Professional and Continuing Education Platform
Coursemaster

2015 - Health Economics, HTA & Market Access (HECON 530)
Distance Learning Program (~ 40 students per cohort per year)
Led by The CHOICE Institute on the UW Professional and Continuing Education Platform
Co-coursemaster with Sean Sullivan

Former

2020 - 2023 PHRM CY 514 - Design and Analysis of Medical Studies – (2 credits, core, ~107 PharmD students)
Coursemaster (Spring quarter)

2013 - 2023 HEOR 531/HSERV 584 – Assessing Outcomes in Health and Medicine – (3 credits, core, 15-25 students)
Co-coursemaster, with Todd Edwards (Winter quarter)

2012 - 2019 PHARM 592 - Design and Analysis of Medical Studies – (3 credits, core, ~100 PharmD students)
Coursemaster (Fall quarter)

2014 - 2016 PHARM 529/ HSERV 529/ MEBI 541/ EPI 541 – Introduction to Systematic Reviews and Meta-Analysis of Evidence
(3 credits, elective, 12-25 students)
Co-coursemaster, with Fred Wolf (Spring quarter)

2013 PHARM 597 – Graduate Seminar, PORPP– (1 credit; 20 graduate students and post-doctoral fellows; with faculty)
Theme: Selected Topics in CER n (Fall quarter)

2012-2013 PHARM 594 – Medication Quality – (2 credits, 80 PharmD students)
Co-coursemaster, with Somani (Spring quarter)

2011 PHARM 592 – Design and Analysis of Medical Studies – (3 credits, core, 80 PharmD students)
Co-coursemaster, with Dave Blough (Fall quarter)

PHARM 597 – Graduate Seminar, PORPP– (1 credit; 20 graduate students and post-doctoral fellows; with faculty)
Co-Coursemaster, with Regier and Bresnahan; Theme: Selected Topics in Preference Elicitation (Winter quarter)

2010-2011 PHARM 590 – Medication Safety and Pharmacy Practice – (2 credit elective, 30 PharmD students)

	Co-coursemaster, with Somani (Spring quarter)
2008-2009	PHARM 500 – Evidence-based Medicine I – (2 credits, required; 81-86 PharmD students) Coursemaster (Autumn quarter)
2004	PHARM 597 Graduate Seminar, PORPP – (1 credit; 10 graduate students, 3 post-doctoral fellow; with faculty) Co-Coursemaster with Gardner; Theme: Aspects of Patient Safety – Focus on Outcomes and Policy
2004	PHARM 535/HSERV 584 – Assessing Outcomes in Health and Medicine – (3 credits; 10 graduate students) Coursemaster (Winter quarter)
2003	PHARM 535/HSERV 584 – Assessing Outcomes in Health and Medicine – (3 credits; Coursemaster: Donald Patrick, 25 graduate students) In preparation for being course master for this class in the Winter of 2004 Prepared and delivered in-class exercises, administered optional class sessions, delivered two didactic lectures, consulted with students regarding their projects, graded midterm and final papers
Didactic – Guest Lecturer	
2024	HEOR 531/HSERV 584 – Assessing Outcomes in Health and Medicine – (3 credits, core, 15-25 students) Preference Assessment, first online, then in-person workshop (Spring quarter)
2023	PHRMCY 580 - Current Trends in Pharmacy Science PRECISE-VALUE: PhaRmacogEnomics Cllnical Support Economic-VALUE (1 hour, XX students – April) BIME 590 - Informatics Grand Rounds PRECISE-VALUE: PhaRmacogEnomics Cllnical Support Economic-VALUE (1 hour, XX students – April)
2022	Fulbright Scholars for Students from the European Union. Servicios de Idiomas. Universidad de Murcia, Murcia, España (May) Effect Modification and Mediation Analysis. Advanced Epidemiology for MPH students and resident physicians. University of Murcia, Murcia, España (Winter 2022)
2021	Clinical Trials. Epidemiology for MPH students and resident physicians. University of Murcia, Murcia, España. PHRMRA 535 - Statistical Topics for Biomedical Regulatory Affairs Professionals “Evidence Synthesis: Systematic Literature Reviews (SLRs) and Meta-Analyses (MAs)” (1.5 hours, 12 students – March)
2020	PHARM 540 – Introduction to Systematic Reviews and Meta-Analyses “Comparative Effects of Telemedicine and Face-to-Face Warfarin Management: A Systematic Review and Network Meta-analysis” (1.5 hours; 12 students – April) PHARM 540 – Introduction to Systematic Reviews and Meta-Analyses “REAdi (Real-World Evidence Assessments and Needs Guidance) Tool” (1.5 hours; 12 students – April) PHG 580 Seminar – Institute for Public Health Genetics Graduate Seminar “The Interface of Precision Medicine and Health Economics and Outcomes Research” (1 hour – January)
2018 -	PHARM 597, CHOICE Graduate Seminar Annual research update (1 hour/year; 35 faculty, post-doc and student attendees)
2017 –	PHARM 542, Principles and Practice of Managed Care Pharmacy “Introduction to Comparative Effectiveness Research” (1 hour – October)
2017	PHG 580 Seminar – Institute for Public Health Genetics Graduate Seminar “A Career in Health Economics and Outcomes Research” (1 hour – November) PHARM 597, PORPP Graduate Seminar 1. “The Importance of Authorship” (1 hour – September) 2. “Validation of the Grit Scale” (1 hour – November) BIME 591 Seminar: Precision Medicine & Informatics “What is Pharmacogenomics?” (1 hour – April) BIME 540: Critically Appraising and Applying Evidence in Healthcare (3 credits; 6 students)

	Led discussion (2 hours – February) Assisted as course coordinator and completed course when coursemaster became unavailable (4 hours – February/March)
2014 -	PHARM 536: Advanced Methods in Cost-Effectiveness Modeling (3 credits; 25 students) “Network Meta-analysis (3 hours - April) “Preference Assessment (3 hours - May)
2014 - 2018	UCONJ 517 Interdisciplinary Clinical Research Methods Seminar (for TL1 pre-doctoral scholars) “Translational and Comparative Effectiveness Research” (1 lecture hour; 1 discussion hour; August) Biomedical Informatics and Medical Education, Personalized Medicine Informatics Group, “Using Data from Electronic Health Records to Characterize Preventable Adverse Drug Events: A Pilot Study of Pharmacogenomic Biomarkers and ADEs”, (1 hour - March) HSERV 592: Graduate Seminar (2 credits; 25 students) “Pharmacogenomic (PGx) Biomarkers to Guide Drug Therapy Decisions” (2 hours – March)
2013 – 2014	“How to Be a Mentor” UW Pharmacy Teaching Certificate (Dana Hammer, RPh, PhD) (2 hours - May)
2013	MEBI 590 – BHI Informatics Lecture Series (1 credit; 20 students) “The CERTAIN Automation and Validation Study” (1 hour – December) UW School of Pharmacy, PharmD students participating in AMCP P & T Competition “Incorporating Comparative Effectiveness Research Evaluations into the AMCP P & T Competition Process” (November)
2012	HECON 520: UW PORPP Certificate in Health Economics and Outcomes Research (distance learning program offered through UW Educational Outreach). Course: Economic Evaluation in Health and Medicine. Lecture 1: “Measuring Health Outcomes: Focus on Patient-Reported Outcomes” (30 minutes; December) Lecture 2: “The Denominator in Cost-Effectiveness Analyses: Methods for Preference Elicitation and QALY Determination” (30 minutes; December) PHARM 535/HSERV 584-Assessing Outcomes in Health and Medicine (3 credits – 25 graduate students) “Psychometric evaluation of health outcomes data” (3 hours; February; with Todd Edwards) MEBI 590 – Informatics Lecture Series, School of Medicine, (1 credit; 15 graduate students) “A Usability Evaluation of Pharmacogenomic Clinical Decision Support Aids in a Computerized Provider Order Entry System” (1 hour – February)
2011-2015	UNITID Fellowship Program in Public Health Management, Health Economics Track University of Nairobi-UW “Measuring Quality of Life Outcomes: The Denominator” – (2 hours; 10 students; February)
2011 - 2014	PHARM 520 P-Introduction to Pharmacoeconomics and Outcomes Research – (2 credits – 13 PharmD students) “Quality of Life Measures” (2 hours – May)
2010-2012	MEBI 541- Introduction to Systematic Reviews and Meta-analysis of Evidence - (3 credits; 15 graduate students) “Indirect and Mixed Treatment Comparisons in Health Technology Assessment and Comparative Effectiveness Research” (2 x 1.5 hours – April; 2 x 1.5 hours - May)
2011	PHARM 597 – Pharmaceutical Outcomes Research and Policy Program Graduate Student Seminar (1 credit; 20 students) “Direct Preference Elicitation” (1 hour – January)
2010	MEBI-541 – Introduction to Systematic Reviews and Meta-analysis of Evidence - (3 credits; 11 graduate students) “CER and Meta-analysis of Observational Studies” (2 hours – May) MEBI 590-Informatics Lecture Series, School of Medicine, (1 credit; 15 graduate students) “Indirect treatment comparisons of biologic therapies in the treatment of rheumatoid arthritis” (1 hour – March) PHARM 597-Pharmaceutical Outcomes Research and Policy Program Graduate Student Seminar

	(1 credit: 20 graduate students) "Indirect treatment comparisons of biologic therapies in the treatment of rheumatoid arthritis" (1 hour – February)
2009	MEBI 590-Informatics Lecture Series, School of Medicine (1 credit; 15 students) "Evaluating the Impact of an Ambulatory CPOE System on Outcomes" (1 hour – January)
2007-2010	PHARM 541 – Pharmacy, Healthcare and Society - (3 credits, 86 PharmD students) Guest Lecturer "Quality Improvement in Healthcare, Patient Safety, Electronic Health Records, Score Cards" (2 hours – February)
2007-	PHARM 534 /HSERV 583 (now HEOR 530) – Economic Evaluation in Health and Medicine – (3 credits; 22 graduate students) Annual Guest Lecturer "Characterizing the Denominator in Cost-effectiveness Analyses: Methods for Preference Elicitation and QALY Determination" (3 hours – October)
2007	PHARM 500 – Quantitative Methods I – (3 units; 86 PharmD students) Guest Lecturer "Research Ethics " (1 hour – November)
2006	PHARM 597 – PORPP Graduate Seminar – (1 credit; 10 graduate students) Faculty presentation "Potential Biases in Studying Hepatitis C Virus Treatment Effects" (1 hour – April)
2005, 2007	PHARM 438 – Gerontological Communication Skills Seminar – (2 credits, 15 PharmD students enrolled in the Geriatric Certificate Program) Guest lecturer "Fundamentals of Grantsmanship" (1 hour – January)
2004,2006	PHARM 541 – Pharmacy, Healthcare and Society - (3 credits, 86 PharmD students)
2004	PHARM 436/PHG 537 – Pharmacoeconomics, Genetics and Health Care – (15 graduate/PharmD students) Guest lecturer: "Measuring Patient Preferences" (2 hours - May)
2003	PHARM 597 Graduate Seminar, UW, PORPP – (1 credit; 10 graduate students) Lecturer: "Current Pharmaceutical Pricing Practices in the US: Are They Optimal?"(1 hour - November) PHARM 597 Seminar, UW, PORPP – (1 credit; 10 graduate students) Lecturer: "Authorship: Is There a Way to Make it Fair?" (February)
2002 - 2003	HSERV 515/PHARM 541 – Health Care and Society (3 credits – Lafferty W, Sullivan SD, Hagyvary S) Small group facilitator for problem-based learning, 15 PharmD/MD/Nursing students
2002	PHARM 495 - Special Studies in Pharmacy (credits vary; 15 PharmD students) Guest lecturer: "Grantsmanship" (1 hour) (May)

Mentoring – Fulbright Scholars

2024 -	Sonya Hsu, PhD, Associate Professor Mid-career Faculty Fellowship Program, University of Louisiana Lafayette
2023	Antonio Moreno-Llamas, PhD, Visiting Scholar from the University of Murcia, Murcia, Spain. "Inequalities in health and quality of life between the Spanish and US population with chronic disease and medications: A real-world database analysis comparing data from the Spanish National Health Survey (ENSE) and the US National Health and Nutrition Examination Survey (NHANES)" (Autumn)
2018-2019	Teerapon Dhippayom, PharmD, MS, PhD. Assistant Professor, Department of Pharmacy Practice, Faculty of Pharmaceutical Sciences, Naresuan University, Phitsanulok, Thailand. 1) "Comparative Effects of Telemedicine and Face-to-Face Anticoagulation Management: A Systematic Review and Network Meta-analysis" and 2) "Impact of Interventions to Support Self-Management for Patients with Asthma: A Systematic Review and Network Meta-analysis"

Dissertation and Thesis Committees

PhD: chair (5), co-chair (2), member (9)

Graduate Student Representative (GSR) with content expertise: 8 PhD committees

MS: chair (20), member (8)

Academic Advisor to PhD students (program formalized in 2020): 2

Other Scholars Mentored**Junior Faculty:** (4)**Post-docs:** (1)**Graduate Students on research projects:** (52)**Patient-Centered Outcomes Research Training Program for external scholars:** (12)**PharmD students and Residents:** Dozens**Academic Advisor**

2022- 2023 Emma Cousin, PharmD (PhD student, The CHOICE Institute) (Academic Advisor)

2020-2022 Donghoon Lee, MS (PhD student, Department of Health Services). Academic advisor (2 years)

Graduated

2020 - 2023 Boya Guo, MPH in Epi/Applied Biostatistics, (PhD student, Department of Epidemiology. "Applications of Statistical Genetics to Hereditary Cancers" (Member, Dissertation Committee)

2018 - 2023 Christine Korhonen, MS (PhD student, Epidemiology), (GSR with content expertise)

2023 Zach Baldwin, PharmD (MS student, The CHOICE Institute)
The impact of continuous levodopa enteral suspension on the burden of oral medication use in severe Parkinson's Disease.Jae Kim, PharmD, (MS student, The CHOICE Institute)
Healthcare Resource Utilization and Costs Associated with Misdiagnosis of Migraine

2021 Frank Angelo, (PhD student, Health Services), "Health Care System Distrust in Applied Genomic Sequencing: Prevalence, Prediction, and Impacts on Patient Experiences and Health Behavior Change". (Chair, Dissertation Committee)

Naomi Schwartz, MS (PhD student, The CHOICE Institute) Dietary Therapy for Pediatric IBD: An Epidemiologic and Economic Analysis. (Chair, Dissertation Committee)

Kimberly Cai, PharmD (MS student, The CHOICE Institute), "Healthcare Resource Use and Costs Associated with Chronic Migraines vs. Non-migraine Controls and Episodic Migraines vs. Non-migraine Controls"(Chair, Thesis Committee)

Tae-Jin Park, PharmD (MS student, The CHOICE Institute), "Evaluating Healthcare Resource Utilization and Associated Costs for Patients with New-onset Post-operative Atrial Fibrillation (Chair, Thesis Committee)

2020 Karen Guo, MS (MS student, The CHOICE Institute), "Family communication tool and cascade testing in Lynch syndrome: Value-of-Information Analysis to Guide Future Research" (Member, Thesis Committee)

Brennan Beal, PharmD (MS student, The CHOICE Institute), "Characterizing and Comparing the Healthcare Resource Utilization and Costs of Patients with Normal Tension Glaucoma Across Disease Severity Levels: a nationally representative sample of US patients 40 years and older" (Chair, Thesis Committee)

Jae Lee, PharmD (MS student, The CHOICE Institute). Geographic variation in triptan and opioid use in a US migraine population. (Chair, Thesis Committee)

Shuxian Chen, MS (PhD student, The CHOICE Institute), "Evaluating Recent Policies to Accelerate Generic Drug Entry". (Member, Dissertation Committee)

Weize Huang, PharmD (PhD student, Pharmaceutics). (GSR, Dissertation Committee)

2019 Ashley Kim, PharmD (MS student, The CHOICE Institute). "Assessing the Healthcare Resource Utilization and Costs among Patients with Geographic Atrophy". (Chair, Thesis Committee)

Eddie Neuberger, PharmD (MS student, The CHOICE Institute). "Estimating Prevalence of Multiple Sclerosis using MarketScan Administrative Health Claims Data". (Member, Thesis Committee)

Jamie Ta, PharmD (MS student, The CHOICE Institute). "Healthcare Resource Utilization and Costs Associated with Non-Adherence and Non-Persistence to Pharmacotherapy for Major Depressive Disorder (MDD)". (Chair, Thesis Committee)

2018-2023	Courtney Segal (PhD student, Health Services), "Determinants and Outcomes of Digital Engagement in Patient Portals". (Member, Dissertation Committee)
2018	Chiemeke Ike, PharmD, MPH (MS student, PORPP), "Treatment Patterns, Switching, and Cycling of Acute Medications of Migraine: A Retrospective Database Analysis". (Chair, Thesis Committee)
	Sara Higa, PharmD, MS (MS student, PORPP), "Treatment Patterns for Psoriatic Arthritis". (Chair, Thesis Committee)
2018	Martha Ragan Hart, MS (PhD student, Public Health Genetics), "Evaluating the Economic Value of Pharmacogenetic Testing". (Chair, Dissertation Committee)
	Bounthavong Mark, PharmD, MPH (PhD student, PORPP), "Evaluating the Effectiveness of the Veterans Affairs Academic Detailing Program on Adherence to Naloxone Guidelines". (Chair, Dissertation Committee)
2017	William Canestaro, MS (PhD student, PORPP), "Calculating the Clinical and Economic Impact of Publication Bias in a Historical Case". (Member, Dissertation Committee)
	Sheila Shapouri, PharmD (MS student, PORPP), "A Prediction Model for 30-Day Hospital Readmissions or Emergency Department Revisits Among Patients with Acute Bacterial Skin and Skin Structure Infections (ABSSI)", (Chair, Thesis Committee)
	Michael Serbin, PharmD (MS student, PORPP), "Estimating the Economic Impact of Open-Angle Glaucoma Therapy Options". (Chair, Thesis Committee)
2016 - 22017	Moo Hyun Kim (PhD student, Social Work), "Meta-analysis of the Impact of Child Maltreatment on Suicide Behavior" (Member, Dissertation Committee)
2016	Chia-Ju (Cheryl) Lee, MS (PhD student, Biomedical Informatics), "Informatics approaches to pharmacogenomics knowledge representation and maintenance to facilitate clinical pharmacogenomic decision-making". (Co-chair, Dissertation Committee)
	Ian Randall (PhD student, Health Services), "Measuring the effect of the patient-centered medical home on utilization and costs for Veterans with PTSD at the VHA". (GSR with content expertise)
	Amy Cizik, MPH (PhD student, PORPP), "Variations in Surgeon Treatment Preferences and Their Impact on the Cost-Utility of Surgery for Soft Tissue Sarcoma". (Member, Dissertation Committee)
	Baradaran, Sarah, PharmD (MS student, PORPP), "Identification and characterization of nephrotoxicity associated with systemic colistin in the management of severe multidrug-resistant (MDR) gram negative infections". (Chair, Thesis Committee)
	Tung Amy, PharmD (MS student, PORPP), "Characterizing Healthcare Resource Utilization, Direct Costs, & Co-Morbidities Associated with Interstitial Cystitis: A Retrospective Claims Analysis". (Chair, Thesis Committee)
2015	Maria Agapova, MS (PhD student, PORPP), "Quantifying Benefits and Harms of Imaging Tests: The Development of a Framework for Quantitative Method Selection". (Chair, Dissertation Committee)
	Chelle Wheat, MS (PhD student, Department of Health Services), "Risk Communication for Patients with Chronic Disease Utilizing Inflammatory Bowel Disease (IBD) as a Chronic Disease Model". (Member, Dissertation Committee)
	Laura Chavez, MPH (PhD student, Department of Health Services), Unhealthy Drinking in Older Adults: 30-day Readmissions, Emergency Care and Health Utility Ratings. (Member, Dissertation Committee)
	Kate Keyloun, PharmD (MS student, PORPP), "Adherence to Medications for Major Depressive Disorder" (Chair, Thesis Committee).
	Vanessa Shih, PharmD (MS student, PORPP), "The Association between Onset of Vision Impairment and Functional Limitations and Informal Caregiving Requirements in Older Americans". (Chair, Thesis Committee)
	Maher Khelifi, PharmD (MS student, Biomedical Informatics), "Design Recommendations for Pharmacogenomics Clinical Decision Support Systems. (Member, Thesis Committee)
2014	Tracy Yep, PharmD (Master's student, PORPP), "Total and disease-specific healthcare cost and resource use of Glaucoma patients by vision loss severity in commercial and Medical Supplemental Patients". (Chair, Thesis Committee)

Adam Nishimura (MS student in Biomedical Informatics and Medical Education), “Genomic Medicine in Clinical Practice”. (Member, Thesis committee)

Diana Marangu, MD (MPH student, Global Health), “Diagnostic Accuracy of Nucleic Acid Amplification Tests in Urine for Pulmonary Tuberculosis: A Meta-analysis”. (Member, Thesis Committee)

2013 Zsolt Hepp, PharmD (Master’s student, PORPP), “Adherence to Oral Migraine Prophylaxis Medications in Patients with Chronic Migraine”. (Chair, Thesis Committee)

Sara Forrester (Master’s student, PORPP), “Estimating the inpatient and outpatient costs of atrial fibrillation and associated adverse events”. (Chair, Thesis Committee)

Ellen Thomason Farrokhi, MD, FACS (eMPH student, Department of Health Services), “SCOAP CERTAIN Peripheral Artery Disease Prospective Observational Study”. (Chair, Thesis Committee)

Nancy Puttkammer, MPH (PhD student, Department of Health Services), “Using Data from a National Health Information System to Strengthen the HIV Care and Treatment Program in Haiti”. (GSR with content expertise)

Allison Tytell Brenner, MPH (PhD student, Department of Health Services), “Methods and perceptions of algorithm use for tailoring or targeting patient decision support in two disease models”. (GSR with content expertise)

John Dickerson, MS (PhD student, Department of Health Services), “Role of Patient Adherence in Mental Health Treatment and Prevention”. (GSR with content expertise)

Susan Hernandez, MPH (PhD student, Department of Health Services), (GSR with content expertise)

2012 Joanna Jaecks Sanderson, PharmD (Master’s student, PORPP), “Migraine-specific health resource utilization in chronic and episodic migraine across six countries”. (Member, Thesis Committee)

Rupa Patel, MS (PhD student, Biomedical & Health Informatics), (GSR with content expertise).

Gregory Guzauskas, MSPH (PhD student, Public Health Genetics), “Genotype vs. phenotype; Alternative biomarker guides for optimizing anti-thrombotic therapy”. (Member, Dissertation Committee)

2011 Mindy Cheng, MS (PhD student, PORPP), “Oncology Orphan Drugs: A Systematic Review, Indirect Treatment Comparison, and Cost-Utility Analysis”. (Member, Dissertation Committee)

Casey Overby, MS (PhD student, Biomedical & Health Informatics), “A Microcosm of Personalized Medicine: A Model for Incorporating Pharmacogenomic Information into Electronic Medical Records for Drug Therapy Individualization”. (Co-Chair, Dissertation Committee)

2010 Patrick Gillard, PharmD (Master’s student, PORPP), “Mapping from disease-specific measures to utility: An analysis of the relationship between the Headache Impact Test Questionnaire and the EuroQual-5D and the Migraine Specific Questionnaire and the EuroQual-5D”. (Member, Thesis Committee)

Mentoring – Junior Faculty

2016-2018 K-12 Faculty mentor
Nita Khandelwal, MD, MS, Assistant Professor and AHRQ K-12 Scholar
“Financial Burden at the End of Life”
UW Department of Anesthesiology and Critical Care Medicine

K-12 Faculty mentor
Cyndy Snyder, PhD, Research Assistant Professor and AHRQ K-12 Scholar
“Microaggression in the Primary Care Setting”
UW Department of Family Medicine

2014 - Faculty Mentor
Casey Overby, PhD, MBIot, Assistant Professor, Johns Hopkins University

2020-2021 Faculty Mentor, “Patient Centered Outcomes Research Partnership (PCORP)”
Brian Woodbury, Research Scientist, Southcentral Foundation
MPH, University of California, Berkeley
Practicum Project: “*Direct-to-Consumer genetic testing among Alaska Native and American Indian people: Results on use, knowledge and impacts*”

2015-2021 Faculty Mentor, "Patient Centered Outcomes Research Partnership (PCORP)" (n=12)
 Over the 3 year grant cycle, the faculty trained 24 clinician-scholars from four partner organizations (Urban Indian Health Institute, Southcentral Foundation of Alaska, Swedish Medical Center, and the WWAMI Practice and Research Network) in comparative effectiveness research and patient centered outcomes research (CER/PCOR). The goal is to create sustainable collaborations to improve healthcare over a wide area, focusing on reducing health disparities, especially among American Indians, Alaska Natives, and rural populations.
 Primary Faculty mentor for:
 Rebecca Jacobsen, Multicare Health System
 Christopher Chung, PharmD, Southcentral Foundation
 Kathy Eroschenko, PharmD, Clinical Associate Professor, Idaho State University
 Ying Zhang, MD, Assistant Professor, UW Department of Family Medicine
 Bethann Pflugeisen, MS, Med, Research Scientist, Institute for Research and Innovation, MultiCare Health System
 Jin Mou, MD, MSc, MPH, PhD, **Senior Research Epidemiologist, MultiCare Health System**
 Anne Reedy, **Director, Institute for Research & Innovation, MultiCare Health System**
 Renee Robinson, PharmD, MPH, Senior Researcher, Southcentral Foundation
 John Holmes, PharmD, Idaho State University, School of Medicine
 Cyndy Snyder, PhD, UW Department of Family Medicine
 Adam Corson, MD, Swedish Medical Center, Seattle, WA

Individual Mentoring – Senior Post-doctoral Fellow

2016-2017 Primary mentor, Research Advisor, Chia-Ju (Cheryl) Lee, PhD (UW Biomedical Informatics Graduate, 2016)
 "Exploring pharmacogenomic biomarker use in the context of electronic health records" (multiple projects)

Individual Mentoring - Graduate Students and Senior PharmD students (n=52 students)

(*='Research Assistant' denotes my project; **='Research Advisor' denotes student initiated project)

2023 *Bella Vo, Jonathan Luong, Tiffany Tran, Zoe Amaris, Giselle Austine (PharmD students)
 PRECISE-VALUE: The Value of Pre-emptive Pharmacogenomic Clinical Decision Support in Oncology (development of NCI grant application)

 **Kevin Li (PharmD student)
 "Indirect Treatment Comparison of Biologic Treatments in Adolescents with Moderate to Severe Atopic Dermatitis: A Systematic Literature Review and Network Meta Analysis"

 2022 - 2023 *Emma Cousin, PharmD (PhD student in CHOICE), and Spencer Cheng, PharmD (MS student in CHOICE)
 "Principles of Data Science" (unfunded, assistance in developing new course)

 2021- *San Aalbers (PhD student in Public Health Genetics), "EDGE: Randomized trial of genomic testing methods for primary care patients: Cost-effectiveness Comparing two Strategies. (NCI)

 *Woojung Lee (PhD student in CHOICE), "Use of Artificial Intelligence in HEOR. 2 systematic reviews (Health Tech Fund)

 2020 - *Boya Guo (PhD student in CHOICE), "Cancer Health Assessment Reaching Many (CHARM), Healthcare resource use analysis" (NHGRI)

 **Donghoon Lee, MSc (PhD student in Health Services), "Spillover effects of mental disorders on family members' utility: SF-6D scores from a US sample"

 **Ashley Cha, PharmD (MS student in CHOICE), "Microvascular Benefits of New Anti-Diabetic Agents: A Systematic Review and Bayesian Network Meta-Analysis of Renal Outcomes"

 2020-2021 *Joyce Jiang (PhD student in CHOICE), "EDGE: Randomized trial of genomic testing methods for primary care patients: Cost-effectiveness Comparing two Strategies. (NCI)

 2019 - *Boshen Jaio (PhD student in CHOICE), "Landscape analyses for Clinical and Economic Impact Analysis of Sickle Cell Disease" (NHLBI)

 *Zizi Elisi (PhD student in CHOICE), "Landscape analysis for Clinical and Economic Impact Analysis of Sickle Cell Disease" (NHLBI)

 *Enrique Saldarriaga (PhD student in CHOICE), "The Value of Real World Evidence in Healthcare Economic Information Communication to Payers" (UW Corporate Advisory Board Health Tech Fund)

	*Joyce Jiang (PhD student in CHOICE), <i>"Pharmacogenomics Clinical Support Economic VALUE (PRECISE-VALUE)"</i>
2019-2020	*Nathaniel Hendrix (PhD student in CHOICE), <i>"Pharmacogenomics Clinical Support Economic VALUE (PRECISE-VALUE)"</i> *Yilin Chen (PhD student in CHOICE), <i>"Pharmacogenomics Clinical Support Economic VALUE (PRECISE-VALUE)"</i>
2019	*Karen Guo (PhD student in CHOICE), "Cancer Health Assessment Reaching Many (CHARM), Healthcare resource use analysis" (NHGRI)
2018 –	*Diana Poehler (PhD student in Health Services), <i>"A Multi-criteria Decision Analysis to compare patient and provider preferences for trans-tibial versus trans-metatarsal amputation for dysvascular disease" (AMP-DECIDE)"</i>
2017	**Shuxian Chen, MS (PhD student in PORPP), "Framework for Evaluating Real World Evidence in Health Technology Assessment" (UW Corporate Advisory Board Health Tech Fund) **Laura Hart, PharmD (MS student in PORPP), Meta-analysis project
2016	**Shirley (Shih-Yu) Chang, PhD Student, Toxicology Program, Department of Environmental and Occupational Health Sciences, School of Public Health for her Capstone Project for the Graduate Certificate in Basic Clinical Research, Department of Epidemiology. "miRNAs for diagnosis of hepatocellular carcinoma: A meta-analysis" * Wei-Jhih Wang, MS (PhD student, PORPP). "Leveraging a Clinical Data Repository to Characterize the Landscape of Pharmacogenomic Biomarker-Guided Medication Use"
2015 -	**Nathaniel Hendrix, PharmD (PhD student, PORPP), 1) "Deriving utility weights from patient-reported outcomes in epilepsy: a mapping of the QOLIE-31 in the US setting"; 2) "Funder effects on reporting of health-state utilities"; 3) "Leveraging a Clinical Data Repository to Characterize the Landscape of Pharmacogenomic Biomarker-Guided Medication Use" and "Estimating the Cost-effectiveness of Pharmacogenomic Clinical Decision Support"
2014-2015	**Mark Bounthavong, PharmD, MPH (PhD student, PORPP), "An evaluation of clinical remission and safety among biologics for moderate-to-severe Crohn's disease using a network meta-analysis" **William Canestaro, MS (PhD student, PORPP), "Drug therapy for treatment of Idiopathic Pulmonary Fibrosis: Systematic Review and Meta-Analysis"
2014	**Cara McDermott, PharmD, MS (PhD student, PORPP), "Outpatient directly observed therapy for hepatitis C among people who inject drugs: a systematic review and meta-analysis"
	Nicole Weiskopf, PhD student Columbia University. "Dynamic, evidence-based guidelines to enable electronic health record data quality assessment and reporting for retrospective research" External Mentor: Review of guidelines that comprised dissertation. **David Kim, MS (PhD student Health Services), "Estimating Preference Weights in Obesity using the EQ-5D and SF-6D" **Wei-Jhih Wong, MS (MS student, Health Services), "Meta-analysis of Outcomes of Donation after Cardiac Death Liver Transplant" *Graham Kim, MS (PhD student, Biomedical Informatics and Medical Education, "The use of patient-reported outcomes in clinical trials" *Elisabeth Vodicka, MHA (PhD student, PORPP), "The use of patient-reported outcomes in clinical trials" *Kate Keyloun, PharmD student, "Introduction to Health Economics and Outcomes Research"
2013 - 2016	**William Canestaro, MS (PhD student, PORPP), "Drug Treatment of Idiopathic Pulmonary Fibrosis" "The impact of anticoagulation monitoring approach on outcomes: A systematic review and meta-analysis"
2012	**Carrie Bennette, MS (PhD student, PORPP), "Lymphovascular invasion of a prognostic indicator in Stage 1 Non Small Cell Lung Cancer: A systematic review and meta-analysis"

*Sara Forrester, PharmD (MS student, PORPP), "Cost-effectiveness of a computerized provider order entry system on medication errors and adverse drug events averted"

*Zsolt Hepp, PharmD (MS student, PORPP), "Cost-effectiveness of a computerized provider order entry system on medication errors and adverse drug events averted"

*Bernie Lau, MPH (PhD student, Health Services), "Use of clinical decision support to improve adherence to national drug-laboratory monitoring guidelines"

*Maria Agapova, MS (PhD student, PORPP), "Comparing Results of Frequentist and Bayesian Approaches to Explore the Comparative Effectiveness of Subgroups in a Cochrane Systematic Review"

2011-2012 *Chia-Ju (Cheryl) Lee, MS (PhD student, Biomedical Informatics), "Evaluation of Pharmacogenomic Clinical Decision Support Aids and Clinical Knowledge Resources in a Computerized Provider Order Entry System"

2010-2012 **Vincent Lin, PharmD (MS student in PORPP), "Indirect treatment comparisons of biologics for treatment of psoriasis"

2011 **John Ney, MD, MS (Clinical Scholar) "Meta-analysis: Elicitation of utilities for neuropathic pain"

*Mervin Johnsingh, BS, Engineering in Electronics & Communication (MS student, Information Management, UW Information School), "A Usability Evaluation of Pharmacogenomic Clinical Decision Support Aids in a Computerized Provider Order Entry System"

2010 *Heidi Wirtz, Pharm D, MS (PhD student, PORPP), "The Impact of Clinical Decision Support Programming on Prescriber Adherence to Laboratory Monitoring Guidelines for Diabetic Patients in the Ambulatory Setting"

**William Wong, PharmD (MS student, PORPP), "Statins in the prevention of dementia and Alzheimer's Disease: A Meta-Analysis"

2009-2010 **Heidi Wirtz, Pharm D, MS (PhD student, PORPP), "Cost- effectiveness analysis of an Ambulatory Computerized Order Entry System on Adverse Drug Events Averted"

2009 *Rafael Alfonso, MD, MS (PhD student, PORPP), "Comparative Effectiveness of Biologic Therapies in Rheumatoid Arthritis: An Indirect Comparisons Approach"

*Joseph Babigumira, MBChB, MS (PhD student, PORPP), "Acquired Coagulopathy in Post-Surgical Patients: A Pilot Study to Determine the Impact on Clinical and Economic Outcomes"

*Rupa Patel, MSI (PhD student, Biomedical and Health Informatics, School of Medicine), "Clinician's Self-Assessed Computer Knowledge in the Primary Care Setting"

*Casey Overby, MS (PhD Student, Biomedical & Health Informatics, School of Medicine), "Using Clinical Decision Support Alerts to Improve Drug-Laboratory Monitoring in the Ambulatory Setting"

2005 **James Cross, MS (PhD Student, PORPP), "The Cost of Treating Ribavirin-induced Anemia in Hepatitis C: The Impact of Using Epoetin"

2002-2003 *Karen L. Smith, BSPHarm (MS student, PORPP), "Health-related Quality of Life Assessment in Chronic Kidney Disease"

2002 *Sarika Ogale, MS (PhD Student, PORPP), "Interferon alfa-2b/Ribavirin Therapy in the Treatment of Hepatitis C Infection: Adherence Rates, Time to Discontinuation and Dosing Regimens"

*Dana Hurley, PharmD (MS student, PORPP), "Global Burden of Illness of Hepatitis B"

Mentoring for Pharm 534/HServ 583 Projects – Economic Evaluation in Health and Medicine (n=25)

2022 Jae Kim (CHOICE), Tim Ohlsen, MD, PhD (Seattle Children's Medical Center)

2020 Kim Cai, TJ Park, Zach Baldwin (CHOICE)

2019 Brennan Beal, Yilin Chen, Jae Lee (CHOICE)

2018 Ashley Kim, Jamie Ta (CHOICE)

2017 Sara Higa, Chiemekwe Ike (CHOICE), Laura Bender (Health Services)

2016 Iris To (Pharmacy), Abby Rosenberg (Medicine)

2015 Jeff Doornbos, Weize Huang (Pharmacy)

2014 Kate Keyloun, Vanessa Shi (PORPP)

2013	Amy Tung, Tracy Yep, Elisabeth Vodicka (PORPP)
2012	Tanya Karwaki, JD, MS, PhD student (LAW); Bridget Sung (Pharmacy)
2011	Katherine Blondon, MD, PhD (Health Services)

Individual Mentoring - Pharmacy Residents

Resident Project Primary Preceptor (n=5)

2009-2010	Co-preceptor with Ken Kenyon, Abigail Dee, PharmD, "Evaluation of Hemorrhagic Complications in Post-Percutaneous Coronary Intervention Patients"
2008-2009	Co-preceptor with Lingtak Neander Chan, Troy Drysdale, PharmD and Henry Kao, PharmD, "Acquired Coagulopathy in Hospitalized Patients: A Pilot Study to Determine the Impact on Clinical and Economic Outcomes" (publication)
2003-2004	Susan Hoang, PharmD, "A Strategic Model for Optimizing Medication Use in Physician Group Practices: The Role of the Clinical Pharmacist" (publication)
	Tiffany Erickson, PharmD, "Efficacy of NPH versus Glargine Insulin in an Adult Medicine Clinic at a County Hospital" (publication)
2002-2003	Stephanie Te, PharmD and Carolyn Wong, PharmD, "Characterizing Medication Errors prior to Implementation of an ACPOE System in a Multispecialty Clinic Setting" (publication)

Resident Project Secondary Preceptor (n=6)

2010-2011	Holly Gurgle, PharmD, "International travel to visit family and friends, Impact on chronic disease management" (publication)
2003-2004	Jennifer Mullins, PharmD, "Outcomes of oral anticoagulant therapy managed by telephone vs. in-office visits in an anticoagulation clinic setting" (publication)
	Jennifer Vogel, PharmD, "Evaluation of Outcomes in Warfarin-treated Patients with Antiphospholipid Antibody Syndrome versus Matched Controls"
2002-2003	Kelly Whitely, PharmD, "Effect of Age on International Normalized Ratio at the Time of Major Bleeding in Patients Treated with Warfarin" (publication)
	Jacqueline Super, PharmD, "Physician Satisfaction Survey with Pharmacist-managed Anticoagulation Clinic Services"
	Ellen Rhinhard, PharmD, "The Effect of Telephone versus In-Person Anticoagulation Follow-up on Patient Satisfaction"

Resident Project Consultant – Consulting with UW/HMC pharmacy residents for residency projects; providing guidance on study design, data analysis and human subjects approval

2013-2014	UWMC-HMC Hospital Pharmacy Residents: Jocelyn Chiang, Travis Foxx-Lupo, Ives Hot, Joong Kim, Madison Lee, Tuvy Pham, Vickie Poremba, Pan Wong; UW Community Pharmacy Residents: Rachel Firebaugh, Becky Schainost, Troy Biornstad
2012-2013	UWMC-HMC Hospital Pharmacy Residents: Anneliese Boddington-Long; Kristina Clyburn; Brian Kopczka, Cathy Lee, Andrea Dickens
2011-2012	UWMC-HMC Hospital Pharmacy Residents: Suraj Devasthali, James Gibson, Matthew Hafermann, Jennifer Knutson, Cathy Lee, Mike Li, Rachel Matthews
2010-2011	UWMC-HMC Hospital Pharmacy Residents: Sarah Balzar, Ilan Chou, Holly Gurgle, Nina Imuro, Mike Li, Emily Min; Community Pharmacy Residents: Carmela Andrada, Kate Choiniere, Jessica Sipe
2009-2010	UWMC-HMC Hospital Pharmacy Residents: Cheryl Hirata, PharmD; Elaine Huang, PharmD, Kristin Harter, PharmD, Randy Knoebel, PharmD, Grace Lin, PharmD, Karen Slezak, PharmD, Terrance Teng, PharmD; Community Pharmacy Residents: Donella Kim, Linda Mach, Grace Navaja, Ashley VanAllen
2008-2009	UWMC-HMC Hospital Pharmacy Residents: Mike King, PharmD; Melanie Petilla, PharmD
2007-2008	UWMC-HMC Hospital Pharmacy Residents: Brooke Baltz, PharmD; Marty Starzewsky, PharmD
2006-2007	UWMC-HMC Hospital Pharmacy Residents: Nancy Lee, PharmD; Fanny Li, PharmD, Amanda Pfeffer, PharmD, Anna Seto, PharmD; Traci White, PharmD

2004 – 2005 UWMC-HMC Hospital Pharmacy Residents: Carrie Ching Yuan, PharmD, Denise Markstrom, PharmD, Erica Miyamoto, PharmD; and Sara Randolph, PharmD

2002-2003 UWMC-HMC Hospital Pharmacy Residents: Colleen Murray, PharmD

Individual Mentoring - *Pharmacy Students* (n=10)

2020 *Dalya Quach (PharmD student), "Landscape analysis for Clinical and Economic Impact Analysis of Sickle Cell Disease" (NHLBI)

Zach Baldwin (PS II), "Landscape Analyses of Sickle Cell Disease: Burden of Disease, Treatment Efficacy, Costs"

2019-2020 Harein Im (PS II, III), Comparative Effects of Telemedicine and Face-to-Face Warfarin Management: A Systematic Review and Network Meta-analysis

Tamatha Mikes (PSIII; Plein Scholar), "PGx-Medications Effectively Delivered Safely (PGx-MEDS)"

Lena Chaitesipaseut (PSIII; Plein Scholar), "PGx-Medications Effectively Delivered Safely (PGx-MEDS)"

2015-2018 Lauren Chin, PS II, III, and IV

1) Characterizing the Strength of Evidence in FDA Labels for Pharmacogenomic Biomarker-Guided Medication Use; 2) Leveraging a Clinical Data Repository to Characterize the LanPGxdscape of Pharmacogenomic Biomarker-Guided Medication Use; 3) Network meta-analysis of pulmonary hypertension

2012-2013 Michael Cusumano, PS III, Investigating the impact of interprofessional communication training on communication-sensitive clinical events". A part of the "WA State Collaborative: Communication to Prevent and Respond to Medical Injuries"

2009 - 2011 Lisa Rogers, PS I and II, 1) "An Educational Program to Train the Trainers to Administer Medications in Childcare settings". This project is funded by the American Academy of Pediatrics and is an initiative targeted statewide. 2) "Estimating the Economic Impact of Medication Therapy Management Services in the Ambulatory Setting"

2003 - 2004 Leslie Cole, PS IV, "Creation of Medication Information Educational Material for Low-Literacy Patients"

2002-2003 Kerry Kelly, RPh, UW external PharmD student, "Characterizing Medication Errors prior to Implementation of an ACPOE System in a Multispecialty Clinic Setting"

Group Mentoring

2009 - 2014 Seminar leader, UW Community Pharmacy Residents
Pharmacy Resident Outcomes Research Enrichment Series (2 hours; 1-2 times per academic year; to assist the residents with their projects)

2006 - 2014 Seminar leader, UW/Harborview Pharmacy Practice Residents (approximately 10 residents per session)
Pharmacy Resident Outcomes Research Enrichment Series (2 hours, four times per academic year; to assist the residents with their projects)

2001– 2006 Seminar leader, UW/Harborview Pharmacy Practice Residents (8-10 residents)
Seminar in Pharmacoeconomics and Outcomes Research (2 hours monthly for 10 months each academic year; equivalent of a 2 credit didactic class)

Teaching prior to 2001

Acad Year	Quarter	Course Number and Title	Nature of Contribution	Hrs/Qtr Instruction	Total Enroll/Qtr.
University of California San Francisco					
1997 - 99	Sp	Clinical Pharmacy 134 (core) Pharmacy Administration	Guest Lecturer	2	120
1996 - 99	Sp	Clinical Pharmacy 134 (core) Pharmacy Administration	Oral Examiner	9	35
1995	F	Clinical Pharmacy 135A (core) Pharmacy Administration	Guest Lecturer	2	120
1995 - 99	F,W,Sp,S	Target Drug/DUE (elective)	Preceptor	120	2

Pharmacy Practice Management
Drug Policy, Information and Economics

Teaching prior to 2001

Acad Year	Quarter	Course Number and Title	Nature of Contribution	Hrs/Qtr Instruction	Total Enroll/Qtr.
University of California San Francisco					
1995	Sp	Drug Info. Anal. Service (core)	Preceptor	80	6
1994 - 95	F,W,Sp,S	Clinical Pharmacy 148 (core) General Internal Medicine	Preceptor Mt. Zion	120	2
1993 – 95	F,W,Sp,S	Clinical Pharmacy 185.11 (elective) General Internal Medicine	Preceptor Mt. Zion	120	2
1992 - 99	F,W,Sp	Clinical Pharmacy 135B (core)	Preceptor, Drug Information Paper	10	2
1992	F	Clinical Pharmacy 130 (core) Therapeutics	Teaching Assistant/ Conference Leader	36	13
1991 - 99	F,W,Sp	Clinical Pharmacy 130,131,132 (core) Therapeutics	Oral Examiner	8	6
1991	F	Drug Info. Anal. Service (core)	Preceptor	80	6
1990-92	F,W,Sp,S	Clinical Pharmacy 148 (core) Neurosurgery Service	Preceptor	120	4

University of the Pacific

1978-79	F,W,Sp	4th year Pharmacy (core) Clerkship Students	Preceptor/ Conference Leader Palo Alto VA Medical Center	54	4
1977	F	Phase I (core) Pharmaceutics	Teaching Assistant University of the Pacific	54	25

Residents Supervised - UCSF

1997 - 99	Preceptor, Pharmacy Practice Resident rotation in Drug Policy, Information and Economics (4 annually)
1995 - 99	Preceptor/Second year Resident in Pharmacy Administration (1 annually)
1995 - 99	Preceptor/Second Year Resident in Drug Information (2 annually)
1993 - 95	Preceptor/Oncology Specialty Resident, Mt. Zion rotation (1 annually)
1993 - 94	Preceptor/Home Therapy Resident for TPN rotation, Mt. Zion (1 annually)
1991, 1995	Preceptor/Drug Information Analysis Service (4 per quarter)
1990-92	Preceptor/Neurosurgery Service (7 annually)

SERVICE

UNIVERSITY SERVICE (2001 – present)

Washington, Wyoming, Alaska, Montana, Idaho (WWAMI) Region (27% of US landmass)

2013 - 2015	Member, Education Core, UW Institute of Translational Health Sciences, NIH CTSA Lead Faculty, Development of ITHS Certificate in Translational Team Science; led creation of 40 videos
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University-wide

2017-2018	Chair, Ten Year Program Review of Graduate Program in Laboratory Medicine
2015-2017	Member, UW Diversity Committee
2009-	Member, Graduate Faculty, UW with privileges to chair dissertation and thesis committees
2004 - 2011	Institutional Review Board, Committee B, Human Subjects Division, UW Member and Chair Pro Tem, as needed (position shared with Sheree Miller)

CHASE Alliance

- 2014 -2019 Leadership Faculty, UW AHRQ K-12 Training Grant in PCOR
- 2012 - 2019 Member, Leadership Team/Steering Committee (with Lou Garrison and Anirban Basu)
UW Graduate Certificate in Comparative Effectiveness Research

School of Public Health

- 2024 – 2025 Member, Committee to select Alumnus of the Year Award
- 2015 - 2023 Associate Director, T-32 Training Program in Health Services Research
- 2015 - 2019 Leadership Faculty, AHRQ R25, Patient Centered Outcomes Research Program (PCORP)
- 2014 Member, Search Committee for Research Assistant Professor

School of Medicine, Department of Biomedical Informatics and Medical Education

- 2015-2020 Member, Search Committee for four Assistant/Associate faculty positions related to
foundational and applied aspects of Analytics and Clinical Research Informatics/Translational Bioinformatics.

School of Pharmacy/Department of Pharmacy

- 2023-2024 Member, School of Pharmacy Promotion and Tenure Committee
- 2022-2023 Chair, School of Pharmacy Promotion and Tenure Committee
- Member, Search Committee, Assistant/Associate Professor, Department of Pharmacy
- Faculty Advisor, Student Chapter Academy of Managed Care Pharmacy
- 2020 - 2022 Member, School of Pharmacy Promotion and Tenure Committee
- 2020 Ad Hoc Committee for Dean Sean Sullivan, PharmD/PhD Scholarship
- 2017, 2018,
2020 - 2021 Member, Graduate Student and Faculty Mentor Award Committee
- 2019 – 2020 Lead Faculty for Department of Pharmacy, School of Pharmacy Ten Year Graduate Program Review
- 2019 Lead Faculty, Department of Pharmacy Graduate Program Strategic Planning
- 2018-2019 Ad Hoc Committee of Dean Sean Sullivan – School of Pharmacy
- 2017 Equity and Inclusion Council - School of Pharmacy
- 2017 - 2023 Local Judge for UW School of Pharmacy, AMCP Pharmacy & Therapeutics Competition
- 2017 Member, Search Committee, Graduate Program Coordinator (staff position), Department of Pharmacy
- 2013-2014 Member, Search Committee, Geriatrics faculty member, Department of Pharmacy
- 2011-2015 Member, Plein Fellowship Grant Review Committee
- 2011 Member, Search Committee, Chair-Department of Pharmacy
- 2009-2010 Member, Curriculum Revision Subcommittee, First and Second Years
- 2004 Participant, Microsoft Project Development Committee
- 2001-2013 Project consultant, Clinical Pharmacy Faculty
Harborview Medical Center Pharmacy Quality Improvement Projects for Hospital Transitions in Care
Medication Therapy Management and Reconciliation
Laura Hanson, PharmD, CDE, Greta Sweney, PharmD, Tiffany Erickson, PharmD, Alvin Goo, PharmD
(2013)
UW Academic Medical Center, Anticoagulation Clinic
Ann Wittkowsky, PharmD, CACP (2006-2008)
Harborview Medical Center, support and guidance for newly employed Research Pharmacist

Sarah Tracy, PharmD (2005-2006)
 Harborview Medical Center Pharmacy Administration Polypharmacy Quality Improvement Projects
 Cindi Brennan, PharmD MHA and Steve Riddle, RPh (2005)
 UW Academic Medical Center Pharmacy Information Technology Study
 Deborah Frieze, PharmD and Jackie Super, PharmD (2003-2004)
 Harborview Medical Center Adult Internal Medicine
 Laura Hanson, PharmD, CDE, Theresa O'Young, PharmD, Greta Sweney, PharmD (2001-2003)

Comparative Health Outcomes, Policy, and Economics (CHOICE) Institute (2018 - 2024)

2024 Assisted in creation of Outcomes Methods Preliminary examination for graduate students

2022 - 2023 Associate Director
 (including development of Data Science Degree Option, MS Fellow Recruitment Webinar, MS fellow webinar, And CHOICE website revision)

Member, Search for Assistant Professor, Health Economics and Outcomes Research

Member, Curriculum Committee

2020 – 2023 Lead Faculty, Development and Implementation of Data Science Degree Option for PhD Students

Development of Data Science Certificate Program
 Course: Introduction to Data Science

2020 Lead Faculty, Graduation/End of Year Celebration (virtual), with Lizzy Brouwer, Jacinda Tran, Phoebe Wright and Marina Gano

2019 - Member, Graduate Student Admissions Committee

2018 - 2021 Faculty reviewer, CHOICE student blog post

2018 Chair Graduate Student Admissions Committee

2018-2023 Lead faculty for creation and grading of Outcomes Methods Preliminary examination for graduate students;
 Second faculty member for creation and grading of Economic Evaluation Methods Preliminary examination for graduate students

Faculty Lead, Annual Retreat for Students and Faculty, Talaris Conference Center, Seattle, WA

2015 - 2022 Graduate Program Director
 Lead, Development of Graduate Option in Data Science (2019-2023)
 Lead, 10 Year Graduate Program Review, Department of Pharmacy (2019-2021)
 Lead, Strategic Planning for Graduate Program (2019)
 Lead, Development of Competencies for PhD Program (2019)

Pharmaceutical Outcomes Research and Policy Program (1999-2017)

2016-2017 Member, Search Committee, PORPP Assistant Professor Faculty Member(s)

2016 – 2018 Chair, Graduate Student Admissions Committee
 Assisting in creation and grading of Biostatistics Preliminary examination for graduate students

2014-2015 Member, Search Committee, Director, PORPP

2012 Reviewer, AHRQ K-12 Scholars Research Progress Reports and Plans (Spring)

2012 Member, Search Committee, Biostatistics faculty member, PORPP

2011- 2017 Creation and grading of Outcomes Methods Preliminary examination for graduate students

2011-2015 Creating and grading Biostatistics Preliminary examination for graduate students

2011 Co-lead (with Lou Garrison) creation of Graduate Certificate in Comparative Effectiveness Research

Co-coordinator (with Hansen) UW Marsha L. Landolt Distinguished Graduate Mentor Award Nomination Committee (for Sean Sullivan)

2010 - 2016	Chair, PORPP Curriculum Committee
2010-2015	Member, Graduate Student Admissions Committee
2010	Chair, PORPP MS and PhD Curriculum Revision Working Group
2009 - 2010	Workshop Coordinator, PORPP Retreat for Students and Faculty, Talaris Conference Center, Seattle, WA
2006 -	Faculty Member, UW School of Pharmacy, Corporate Advisory Board, Outcomes Group
2004	Participant in "Campaign UW: Creating Futures" – School of Pharmacy materials for Development efforts PORPP representative, UW President, Mark Emmert's visit to the School of Pharmacy Lead, creation and execution, PORPP Poster Presentation for the Corporate Advisory Board Meeting Co-creator (with Penny Evans), PORPP tabletop display to formalize graduate recruitment efforts at professional meetings Manager, PORPP section, Department of Pharmacy Research and Publication Bulletin Board displays
2003	Member, Search Committee, senior faculty member, PORPP Interviewee, "Team Approach for PORPP". <i>Books & Bytes</i> . UW Health Sciences Libraries Newsletter (Spring)
2002 - 2005	Host and Participant, PORPP Annual Dinner at ISPOR
2001 - 2005	Co-Host and member, UW School of Pharmacy Corporate Advisory Board Project lead (with Penny Evans), PORPP Biennial Report/ Annual Alumni Newsletter PORPP Lead, <i>Dawg Scripts</i> , UW School of Pharmacy Newsletter (quarterly)
2001-2002	PORPP representative, space planning committee for relocation of space, relative to the partnership with the UW Center for Cost and Outcomes Research (CCOR)
2001 - 2008	Speaker at Annual PharmD Student Orientation

PROFESSIONAL SERVICE (SCIENTIFIC), NATIONAL/INTERNATIONAL LEVEL

2025-2028	Presidential officer International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Committee member, ISPOR Finance Committee (2025-2026) Committee member, ISPOR Executive Committee (2025-2028) Committee member, ISPOR Design of Artificial Intelligence Certificate Educational Program
2026 -	ISPOR Ambassador
2026-2028	Co-chair (with Jeroen Jensen), Network Meta-analysis Good Research Practices, International Society for Pharmacoeconomics and Outcomes Research (ISPOR)
2021-2024	Elected member, Board of Directors, ISPOR Committee member, ISPOR Competency Framework (2023-2024) Committee member, ISPOR Governance Committee (2021-through 2025) Committee member, ISPOR Audit Committee (2023 through 2025)
2021-2029	Associate Editor, Value in Health, The Official Journal of ISPOR
2023-2024	Member, Committee to update HEOR Competency Framework, ISPOR
2020 - 2021	Faculty Advisor, UW Student Chapter of ISPOR

2017-2023	Member, appointed by competitive appointment Academy Health Methods Council
2019-2020	Ad hoc member, committee to establish competencies, goals and objectives for PGY 2 residency in Population Health American Society for Health-System Pharmacists
2015	Invited to draft book chapter for AHRQ's Registries for Evaluating Patient Outcomes: A User's Guide. Update to Third edition (advance electronic chapters in preparation for Fourth edition) Chapter on Engaging Patients as Stakeholders throughout the Registry Lifecycle". (declined to participate due to competing priorities)
2013 - 2014	Invited Manuscript Reviewer, Marshall DA, Burgos-Liz L, IJzerman MJ, et al. Applying dynamic simulation modeling methods in health care delivery research—The SIMULATE checklist: Report of the ISPOR Simulation Modeling Emerging Good Practices Task Force. <i>Value Health</i> 2015;18:5-16.
2013 - 2019	Member, CER Advisory Committee of the PhRMA Foundation
2013-2017	Member, External Advisory Committee, University of Maryland Center of Excellence in Comparative Effectiveness Research. PhRMA Foundation funded
2013-2015	Participant in a modified Delphi process to develop guidelines for observational data research "RECORD (REporting of studies Conducted using Observational Routinely-collected Data)" An international initiative of the EQUATOR Network
2012 -2013	Member, Clinical and Translational Science Award (CTSA) Key Function Committees: Comparative Effectiveness Research Methods Working Group Practice-Based Research Network Committee Community Engagement Committee
2010 - 2019	Member, Research Advisory Panel, Research & Education Foundation American Society of Health-System Pharmacists
2009-2010	Member, Task Force on Indirect Treatment Comparisons Good Research Practices, International Society for Pharmacoeconomics and Outcomes Research (ISPOR)
2015 -	Reviewer, ISPOR Good Research Practices Task Force Reports Marshall, et al. Applying dynamic simulation modeling methods in healthcare delivery research – The SIMULATE Checklist: Report of the ISPOR Simulation Modeling Emerging Good Practices Task Force. <i>Value Health</i> . 2015;18:5-16 Crown, et al. Constrained optimization methods in health services research-An introduction: Report 1 of the ISPOR Optimization Methods Emerging Good Practices Task Force. <i>Value Health</i> . 2017;20:310-319 Brazier, et al. Identification, review and use of health state utilities in cost-effectiveness models: An ISPOR Good Practices for Outcomes Research Task Force Report. <i>Value Health</i> . 2019;22:267-275
1999-	Manuscript Reviewer (periodically) <i>Annals of Internal Medicine</i> (2005-) <i>American Journal of Health-System Pharmacy</i> (1999-) <i>Applied Clinical Informatics</i> (2010-) <i>BioMed Central Medical Informatics and Decision Making</i> <i>Clinical Pharmacology and Therapeutics</i> (2014-) eGEMS (Generating Evidence and Methods to improve patient outcomes) (2013 - 2018) Knowledge Management Workgroup (2014) <i>Health Affairs</i> (2010-) <i>Journal of Biomedical Informatics</i> (2020-) <i>Journal of Clinical Epidemiology</i> (2012-) <i>Journal of Clinical Pharmacy and Therapeutics</i> (2010-) <i>Journal of General Internal Medicine</i> (2006-2016) <i>Journal of the American Medical Informatics Association</i> (2006-) <i>Journal of Managed Care and Specialty Pharmacy</i> (2020-) <i>Medical Care</i> (2006-) <i>Medical Decision Making Policy & Practice</i> (2017-) <i>Pharmacoeconomics</i> (1999 -) <i>Quality of Life Research</i> (2023)

Research Synthesis Methods (2013 -)
The Annals of Pharmacotherapy (2003, 2009-)
Value in Health (2010 -)
 Systematic Reviews (2022-)

Editorial Boards

Associate Editor, *Value in Health* (2021 - present)

Guest editor, theme section on Remote Patient Monitoring, *Value in Health* (2021)

Invited to become editor, *American Journal of Health-System Pharmacy* (2016-2018); declined due to competing commitments

Senior editor, *eGEMS (Generating Evidence and Methods to improve patient outcomes)*.
 Electronic journal of the Electronic Data Methods Forum, Academy Health, with support from the AHRQ (2011-2018)

Student Editor (by competitive appointment), *Journal of the American Medical Informatics Association*, (2006-2008)

Editor, *American Journal of Health-System Pharmacy* (2005-2007)

Abstract Reviewer

NRSA Fellowship Abstracts/AcademyHealth Annual Research Meeting (2019-2020)
 AcademyHealth Annual Research Meeting (2018-2019)
 AMIA Joint Summits on Translational Science (2017)
 ISPOR 21st Annual International Meeting (2016)
 Academy Health Concordium 2015 (2015)
 ISPOR 19th Annual International Meeting (2014)
 ISPOR 18th Annual International meeting (2013)
 American Medical Informatics Association (2010-2012)
 ISPOR 9th Annual European Congress (2006)
 ISPOR 7th Annual European Congress (2004)

Grant Reviewer

2023 Implementation of a Safe, Equitable and Internationally Standardised Drug Allergy Management. System in South Asia. University of Birmingham. Medical Research Council Translational Global Science Grant Review Panel (UK)

2021 NIH National Center for Complementary and Integrative Health

2018 Medical Research Council Translational Science Grant Review Panel (UK)

2014 NIH Health Care Systems Research Collaboratory - Demonstration Projects for Pragmatic Clinical Trials Focusing on Multiple Chronic Conditions (UH2/UH3, RFA-RM-13-012)

2013 ASHP Research and Education Foundation, American Society of Health-System Pharmacists, "Development of Complexity Score for Drug Therapy Management"

2012-14 PhRMA Foundation Committee on Comparative Effectiveness Research Curricular Training

2012 Patient Centered Outcomes Research Institute

2006 ASHP Research & Education Foundation Unsolicited Grant Program

American College of Clinical Pharmacy, Investigator Development Research Awards

Podium/ Poster Judge
 ISPOR 15th Annual International Program (2010)
 ISPOR 10th Annual International Program (2005)

Selection Panel, Literature Awards Program,
 ASHP Research & Education Foundation (2005-2006)

Session Moderator

ASHP Midyear Clinical Meeting (2005)
ISPOR 8th Annual International Meeting (2003)

Focus group member, Board of Pharmaceutical Specialties, Ambulatory Care Specialty,
ASHP Midyear Clinical Meeting, Las Vegas, NV (2005)

PROFESSIONAL COMMUNITY SERVICE

2024 – present Member, Advisory Board – ConnectMyVariant,
an educational health-focused nonprofit organization that supports individuals and families with hereditary disease
such as cancer risk, in their early detection and prevention efforts.
Member, Ashley Doyle Scholarship Selection Committee

PROFESSIONAL ASSOCIATION MEMBERSHIPS AND SERVICE

Memberships/inductions into Professional Organizations

ISPOR Health Economics and Outcomes Research (1999 – present)
Society for Research Synthesis Methodology, elected (2013 – present)
Society for Medical Decision Making (current)
Fulbright Alumni Association
American Statistical Association (2020-2021)
AcademyHealth (past)
American Association of Colleges of Pharmacy (past)
American College of Clinical Pharmacy, elected (past)
American Medical Informatics Association (past)
Beta Gamma Sigma National Business Honor Society (inducted)
Lambda Kappa Sigma Professional Pharmacy Fraternity (inducted)
Phi Lambda Sigma Pharmacy Leadership Society (inducted)
University of Washington Alumni Association (current)
University of California San Francisco School of Pharmacy Alumni Association (affiliate member)
University of San Francisco Alumni Association
University of the Pacific Alumni Association
Delta Delta Delta Sorority (inducted)

American Society of Health-System Pharmacists (a 20,000 member organization in the year 2000)

2002 – 2003 Member, Commission on Therapeutics
Member, ASHP Research & Education Foundation Development Committee
Chair, Committee on Nominations, Section of Clinical Specialists and Scientists
2001 – 2002 Member, ASHP House of Delegates
2000 – 2003 Office of the Chair, ASHP Section of Clinical Specialists and Scientists
1997 - 2000 Member, Executive Committee, ASHP Section of Clinical Specialists and Scientists
1994 - 1999 Member, ASHP House of Delegates
1994 – 1997 Member, Committee on Public Policy, ASHP Section of Clinical Specialists and Scientists
1992 – 1994 Member, ASHP Council of Educational Affairs
1977 – 2019 Member, ASHP

California Society of Health-System Pharmacists (a 3,000 member organization in the year 1994)

1994 Assisted in passage of advanced practice legislation for California pharmacists
1993 - 1995 President-elect, President, Chairperson of the Board of Directors
1990 – 1992 Member, Board of Directors
1988 – 1994 Member - Committee on Membership (1988), Council on Organizational Affairs (1989), Committee on Nominations
(1990), Committee on Goals (1993), Committee on Finance (1993-95), California Pharmacy Council (1993-95),
Government Affairs Advisory Committee (1996)
1978 - Member, CSHP

Regional Chapter Activities, CSHP

1990 – Member, Golden Gate Society of Health-System Pharmacists
1987 – 1990 Member and presidential officer, Cuesta Chapter, CSHP
1978 – 1987 Member, Quatra County Chapter, CSHP