

# HEALTH ECONOMICS AND OUTCOMES RESEARCH

## FELLOWSHIP PROGRAM

ABBVIE - UNIVERSITY OF WASHINGTON  
2024-2026



# ABOUT ABBVIE

**AbbVie's mission is to discover and deliver innovative medicines and solutions that address complex health issues and enhance people's lives**

Treating  
**50m**  
people annually

in more than  
**175+**  
countries

across  
**30+**  
brands

Treating  
**75+**  
conditions

## HEOR

AbbVie's HEOR Team is a premier research group that has been widely recognized for its scientific expertise and leadership.



→ Strategic decisions

→ Pricing & reimbursement

→ Innovative research approaches and partnerships

→ Patient experience

## Therapeutic Area (TA)/Asset Strategy

Provide strategic global leadership in identifying, conducting & delivering innovative health economics & outcomes evidence generation solutions across the products lifecycles.

**Aesthetics**

**Immunology**

**Oncology**

**Eye Care**

**Neuroscience**

**General Medicine**

## Centers of Expertise (CoE)

**Patient-Centered Outcomes Research**

Leverages best-in-class expertise to integrate the patient experience as a central component of value demonstration and highlight patient benefit

**The Center for Health Economics and Real-World Evidence**

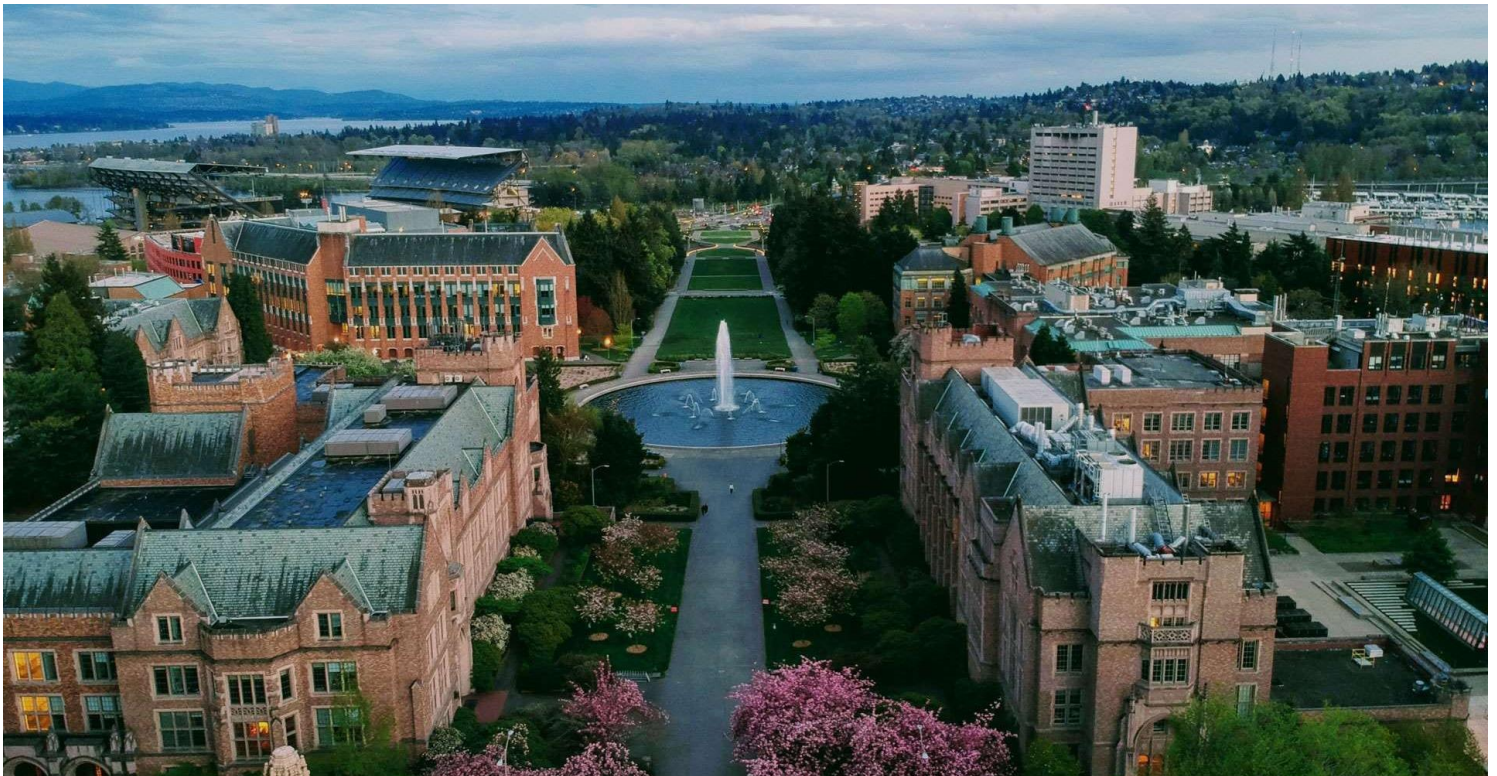
Generates strategically focused and innovative high-quality RWE, meta-research and economic modeling to inform internal & external decision-making and optimize access and reimbursement

# ABOUT THE UNIVERSITY OF WASHINGTON

The University of Washington is a world-class leader in health sciences education and has been consistently listed in US News and World Report as one of the top 10 institutions for its graduate programs. The University is particularly noted for its strong research programs and since 1974 has received more federal funds for research and training than any other public university in the United States. It fosters a highly collegial atmosphere between departments and academic units, creating a particularly attractive environment for such partnerships between the public and private sectors.

The Comparative Health Outcomes, Policy, and Economics (CHOICE) Institute is housed within the University of Washington School of Pharmacy, which boasts nearly 125 years of academic and research success. Faculty in the program (1) provide advanced research training for graduate students, postdoctoral fellows and clinicians (PharmDs, MDs), (2) conduct rigorous scientific research in economic evaluations and outcomes of pharmaceuticals and other health technologies, and (3) translate and disseminate the results of research into clinical practice and healthcare policy, with the goal of improving patient care.

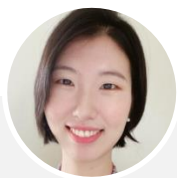
The CHOICE Institute faculty participating in the fellowship have been chosen both for their dedication to teaching and their excellence in research. Each is trained either as a health economist or health services researcher and all have an extensive history of effective economic evaluations and pharmacoepidemiologic research.



# ABOUT OUR FELLOWSHIP

The University of Washington/AbbVie HEOR Fellowship is a two-year program that provides training and hands-on experience in a broad-range of health economics and outcomes research topics. The program is structured to allow fellows to gain proficiency in health outcomes strategy and research as conducted in both academic and pharmaceutical industry settings.

## Fellowship Directors



**Kyu Lee**

University of Washington

*PhD, MS,*

*Endowed Assistant Professor  
of Health Decision Sciences*

E-Mail:

[kyueunl@uw.edu](mailto:kyueunl@uw.edu)



**Jing Li**

University of Washington

*PhD, MS, MA,*

*Assistant Professor of Health  
Economics*

E-Mail:

[jli0321@uw.edu](mailto:jli0321@uw.edu)



**Jae Lee**

AbbVie

*PharmD, MS,*

*Associate Director,  
HEOR Strategy*

E-Mail:

[jaehyun.lee@abbvie.com](mailto:jaehyun.lee@abbvie.com)

## The Fellowship Program

- The University of Washington and AbbVie are pleased to offer two, 2-year HEOR Fellowship positions for the academic year 2024-2026. Fellows will spend their first year at the University of Washington (Seattle, WA), and the second year at AbbVie (Mettawa, IL; Irvine, CA; or Florham Park, NJ).
- Compensation includes tuition, a competitive stipend, medical insurance, conference attendance, relocation package, and holiday/vacation time. A Master's (MS) Degree in Health Economics & Outcomes Research is awarded upon completion of all course requirements and thesis project.



# FELLOWSHIP STRUCTURE



## First Year Objectives



Learn principles of economics and in particular how economics influences the use, cost, and availability of pharmaceuticals.



Understand the complexity behind drug policy and how it determines relationships between consumers, health care providers, insurers, payers, and government agencies.



Appreciate the breadth and scope of analytical methods needed for the assessment of Patient Reported Outcomes (PROs), economic modeling, and real-world studies.



Gain insight of formulary development, maintenance and evaluation in institutional, managed care, and state-level government programs.

## Second Year Objectives



Apply principles of economic evaluations, outcomes research and real-world analysis in a pharmaceutical environment with hands-on research and collaborations



Integrate into cross-functional and HEOR work streams to develop a deeper understanding of the role of HEOR in drug development and commercialization



Develop key research tactics and innovate to drive the field of HEOR forward and maximize value demonstration of AbbVie products.

# PERSPECTIVES FROM PAST AND CURRENT FELLOWS

Insights from current AbbVie colleagues



2014-2016

**Katelyn Keyloun**

“ The fellowship experience was didactic and robust in learning the skills necessary to conduct pharmacoeconomic and health outcomes research as well as to lead strategy for a pharmaceutical company. ”

2020-2022

**Kim Cai**

“ My most memorable experience was applying my research skills from my thesis work to our protocol designs for real-world studies on QULIPTA (Atogepant) and seeing the direct transferability of those skills. Seeing my research impact business use helped me understand my role in bringing forth patient access to new therapies. ”



2018-2022

**Jamie Ta**

“ The MS program at CHOICE, together with the multiple opportunities I had to lead high-impact HEOR studies, collaborate with cross-functional partners, and support HEOR strategy... helped me gain a better understanding of the role of HEOR in the pharmaceutical industry and develop the technical, leadership, and communication skills that have prepared me well for my current role. ”

2019-2021

**Jae Lee**

“ The goal of our program is to equip our fellows with the training and skills necessary to succeed in HEOR. Over half our past fellows have stayed on with the company following their fellowship and this speaks to the quality of our program and our fellows. ”



2020-2022

**TJ Park**



“ Completing the UW/AbbVie HEOR fellowship was a very rewarding experience. The academic and industry mentors are all incredibly supportive and the cross-company fellow cohort brings a sense of community. ”

2021-2023

**Gina Ahmadyar**

“ The most memorable experience for me was the moment I completed the analysis for my thesis. It was an incredible feeling to take it from an idea and culminate it into tangible results. ”

2021-2023

**Annaliza Dominguez**



“ The knowledge and skillset gained in my first year paired with the experience of managing a variety of projects in my second year, including RWE and PRO validation studies, have set me up for success and helped build confidence going into my post-fellowship role. ”

2022-2024

**Jae Kim**

“ The incredible support from all the mentors made the 1st year fellowship experience truly great. The knowledge and experience I gained in the first year of the fellowship prepared me well to manage projects in my second year at AbbVie. ”



“ The first year was fantastic for teaching me the fundamental methods used in HEOR, and I'm very excited to implement them going into my second year. ”

2022-2024

**Zach Baldwin**



2023 - 2025

**Richard Ta**

“ The interview process to me felt authentic. The people I was interviewing with were invested in my experiences and goals, and my impression was that they were prepared to help me achieve my goals. ”



2023 - 2025

**Filmon Haile**



“ At first, I was intimidated by the amount of people and the names that were going to be in my interview. Though, when I began, I felt a great sense of ease because of how conversational and natural it was. The interview made me realize how genuine the team was, and how they truly want to see their fellows succeed. ”

# CURRENT FELLOWS



## First Year Fellows

**Filmon Haile,**  
PharmD



**Filmon** recently graduated from University of Southern California with his PharmD. He has industry experience in medical and regulatory affairs. Though he found his passion for HEOR through elective courses and side projects that he took on throughout his APPE rotations. Filmon is stimulated by thought-provoking conversation, and he is passionate about filling in unmet gaps in our healthcare system. He is really looking forward to building on his technical experience and working closely with the renowned faculty at CHOICE Institute.

**Filmon** is thrilled to begin his research in identifying disparities in Bipolar Disorder diagnoses and treatment. He will dive into racial, gender, treatment and other disparities to gain a better understanding on how to increase equity in mental healthcare access. Filmon believes that there is so much work to be done in the psychiatry space, and he is excited that he gets to be involved in moving the needle forward through his research at CHOICE.

**Richard Ta,**  
PharmD



**Richard** earned his PharmD from the University of Southern California (USC) Alfred E. Mann School of Pharmacy. During pharmacy school, Richard developed an interest in HEOR through his participation as an AMCP P&T competitor and internship in market access and HEOR. He also consulted for pharmaceutical manufacturers at Xcenda and helped develop a budget impact model for patients with hypoplastic left heart syndrome who participate in the interstage home monitoring program at Children's Hospital Los Angeles.

**Richard** is excited to embark on his journey as a postdoctoral fellow and work closely with his UW CHOICE faculty and AbbVie advisors. He is looking forward to building a strong foundation in HEOR from learning about the fundamentals at UW and applying them in an industrial setting at AbbVie. For his systematic literature review, he will be using real world evidence to investigate outcomes of the treatment options in patients with atopic dermatitis.

# CURRENT FELLOWS



## Second Year Fellows

**Zach Baldwin,**  
PharmD, MS



**Zach** earned his Doctor of Pharmacy degree from the University of Washington School of Pharmacy, where he had an introduction to HEOR during his first AMCP P&T competition. It was after that competition that he knew he wanted to gain additional knowledge within the field, and so he sought out additional courses, faculty mentors, and internships to deepen his understanding of the methods. The partnership with AbbVie and the UW afforded him the mentorship from Drs. Beth Devine, Maria Agapova, and Connie Yan during his first year. Zach completed his Master's degree after completing his thesis on time-related trends for medication treatment patterns after initiation of device-aided therapy in Parkinson's Disease. Now in his second year, Zach will work closely with Connie Yan in the Parkinson's Disease space supporting key HEOR strategic imperatives. Zach is excited to apply his formal education in a real-world setting and further refine his understanding of health economics and outcomes research.

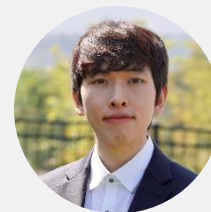
### ABSTRACTS FROM FELLOWSHIP:

- 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.
- Baldwin Z, Devine B. Incidence of Malignancies in Sick Cell Disease (SCD): A Systematic Review. ISPOR, May 2023, Boston, MA.

### MANUSCRIPTS FROM FELLOWSHIP:

- Baldwin Z, Yan C, Agapova M, Devine B. Impact of Carbidopa-Levodopa Enteral Suspension Initiation on Oral Medication Treatment Patterns in Persons with Parkinson's Disease: A Retrospective Cohort Analysis. (In Progress)

**Jae Rok Kim,**  
PharmD, MS



**Jae** earned his PharmD from the University of Michigan. During pharmacy school, Jae was able to work in multiple functional areas and with formulary decision-makers. He developed an interest in HEOR through these experiences as he realized the utility of real-world evidence and the importance of developing strong value propositions for treatment options. During his first year of the fellowship, Jae worked under the mentorship of Drs. Beth Devine, Tae Jin Park, and Maria Agapova to assess the health care resource utilization and costs associated with a misdiagnosis of migraine for his thesis project. In his second year, Jae is continuing his work with AbbVie's migraine team with Tae Jin Park. Jae is excited to apply his learnings from the first year of the fellowship to coming projects within AbbVie and to continue his training in HEOR.

### ABSTRACTS FROM FELLOWSHIP:

- Kim, J, Park TJ, Devine B. Characteristics of Diagnostic Setting in Migraine Diagnosis: A Systematic Review. UW Corporate Advisory Board, September 2022, Seattle, WA.
- Kim J, Park TJ, Devine B. Cost Effectiveness of Dual vs. Triple Therapy in Management of Atrial Fibrillation with Percutaneous Coronary Intervention. ISPOR, May 2023, Boston, MA.

### MANUSCRIPTS FROM FELLOWSHIP:

- Kim J, Park TJ, Devine B, Agapova M, Blumenfeld A, Smith J, Shah D. Healthcare Resource Utilization and Costs Associated with the Misdiagnosis of Migraine. (In Progress)



# PAST FELLOWS

## GINA AHMADYAR PharmD, MS 2021-2023

Manager, Health Economics and Outcomes Research at AbbVie



### KEY RESEARCH FROM FELLOWSHIP

1. Ahmadyar G, Hansen R. Ocular Injectable Treatment Options for Post-Cataract Macular Edema: A Systematic Review of Current Literature. *J Cataract Refract Surg*. 2022 Feb 10. doi: 10.1097/j.jcrs.0000000000000908. Epubahead of print. PMID: 35171142.
2. Ahmadyar G, Carlson JJ, Kimura A *et al*. Real-world treatment patterns and economic burden of post-cataract macular edema. *BMC Ophthalmol*. 2023;23(1):380. doi.org/10.1186/s12886-023-03113-x

## ANNALIZA DOMINGUEZ PharmD, MS 2021-2023

Manager, Health Economics and Outcomes Research at AbbVie



### KEY RESEARCH FROM FELLOWSHIP

1. Dominguez A, Carlson JJ, Garcia J, Patel V. Evaluating Treatment Satisfaction on Future Spending for Professional Cosmetic Treatments Among Aesthetically Conscious U.S. Adults. (In Progress)

## TAE JIN PARK PharmD, MS 2020-2022

Associate Director, Health Economics and Outcomes Research at AbbVie



### KEY RESEARCH FROM FELLOWSHIP

1. Park T, Higa S, Gillard P, Hansen R, Devine B. Evaluating Healthcare Resource Utilization and Associated Costs in Patients with New-Onset Postoperative Atrial Fibrillation. (In Progress)

## KIM CAI PharmD, MS 2020-2022

Manager, Health Economics and Outcomes Research at AbbVie



### KEY RESEARCH FROM FELLOWSHIP

1. Cai K, Gandhi P, Burslem K, Barker-Haliski M, Devine B. Evaluating Healthcare Resource Use and Associated Costs in Patients with Chronic or Episodic Migraine. (In Progress)

## JAE HYUN LEE PharmD, MS 2019-2021

Associate Director, Health Economics and Outcomes Research at AbbVie



### KEY RESEARCH FROM FELLOWSHIP

1. Lee J, Shewale A, Barthold D, Devine B. Geographic Variation in the Use of Triptans and Opioids for the Acute Treatment of Migraine Attacks. *Headache: The Journal of Head and Face Pain*. 2021 Nov;61(10):1499-1510.

## JAMIE TA PharmD, MS 2018-2020

Associate Director, Health Economics and Outcomes Research at AbbVie



### KEY RESEARCH FROM FELLOWSHIP

1. Ta JT, Sullivan SD, Tung A, Oliveri D, Gillard P, Devine B. Health care resource utilization and costs associated with nonadherence and nonpersistence to antidepressants in major depressive disorder. *J Manag Care Spec Pharm*. 2021 Feb;27(2):223-39.

## KATELYN KEYLOUN PharmD, MS 2014-2016

Director, Health Economics and Outcomes Research at AbbVie



### KEY RESEARCH FROM FELLOWSHIP

1. Keyloun KR, Hansen R, Hepp Z, Gillard P, Thase M, Devine EB. Adherence and Persistence Across Antidepressant Therapeutic Class: A Retrospective Claims Analysis Among Insured U S Patients with Major Depressive Disorder (MDD). *C N S Drugs*. 2017 May;31(5):421-432.
2. Mathias P, Hendrix N, Wang W, Keyloun KR, Khelifi M, Tarczy-Hornoch P, Devine EB. Characterizing pharmacogenomic-guided medication use with a clinical data repository. *Clin Pharmacol Ther*. 2017 Aug;102(2):340-348.
3. Chin L, Devine B, Baradaran S, Keyloun K, Canestaro W, Pham J. Characterizing the Strength of Evidence in FDA Labels for Pharmacogenomic Biomarker-Guided Medication Use. *AMIA Joint Summits on Translational Science*. 2017 Jul; eCollection.

# APPLICATION ELIGIBILITY

- Applicants for this fellowship must have a degree in pharmacy by 2024 and have some research experience (preference will be given to those with a high academic standing).
- Excellent written and verbal communication skills are also essential.
- Applicants will be required to submit their:

- 1 Curriculum vitae
- 2 Letter describing their career goals
- 3 Three letters of recommendations

- Selection of fellows will be made by a steering committee composed of the University of Washington faculty members and representatives from AbbVie.



## APPLICATION DEADLINE October 23, 2023

### APPLICATION INFORMATION

Interested students must apply through the University of Washington Graduate School Site. The online application process can be found at:  
<https://sop.washington.edu/choice/graduate-education-trainingprograms/ms-heor-fellowships/>

### Fellowship Information Session

September 25<sup>th</sup> 2023  
5:00 PM -- 6:00 PM PST  
Registration required: <https://bit.ly/UW-HEOR-2023>

### ABBVIE FELLOWSHIP PROGRAMS

University Location	Seattle, WA
AbbVie Location	Mettawa, IL; Irvine, CA; or Florham Park, NJ
Program Length	2 years
Programs Offered	Health Economics and Outcomes Research
Eligibility	Degree in Pharmacy

### CONTACT INFORMATION

If you have any questions, please contact:

#### University of Washington

##### Marina Gano, M.Ed

Graduate Program & Operations Manager  
1959 N E Pacific St. Suite H375,  
Box 357630 Seattle, WA 98195

**E-Mail:** [mcgano@uw.edu](mailto:mcgano@uw.edu)

**Phone:** 206- 616-1383

#### AbbVie

##### Jae Lee, PharmD, MS

Associate Director, HEOR Strategy  
2525 Dupont Drive  
Irvine, CA 92612

**Email:** [jaehyun.lee@abbvie.com](mailto:jaehyun.lee@abbvie.com)

**Phone:** 949-431-8658