



PHARMACEUTICAL INDUSTRY

Fellow Program



**PASSION
TO
INNOVATE** | **POWER
TO
CHANGE**



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PURPOSE

The Bayer and University of Washington **Health Economics and Outcomes Research Fellow Program** is a two-year program that provides training and hands-on experience in a broad range of health economics and outcomes research topics. This program is structured to allow the fellow to gain proficiency in these areas of research as conducted in both the **academic and pharmaceutical industry settings**.

OVERVIEW

Bayer and the University of Washington are pleased to offer a two-year Health Economics and Outcomes Research Fellow position for the academic years 2019–2021.

The first year of the fellowship will be spent at the University of Washington (Seattle, WA).

- The objective of the first year is to educate the fellow on principles and methods of health economics and outcomes research. In this first year, the fellow will take core courses to satisfy the Master's Degree requirements. Courses include biostatistics, health economics, and epidemiology. The fellow will be awarded a **Master's Degree** from the University upon completion of all course requirements and a thesis project.

The second year will be spent at Bayer (Whippany, NJ).

- The objective of the second year is to provide the fellow with hands-on training and exposure to the process of **generating and utilizing strategically focused health economics and outcomes research** to support the development and commercialization of pharmaceutical products. This will be accomplished by working closely with colleagues in the US Health Economics and Outcomes Research group.

Compensation includes a competitive stipend, basic medical insurance, relocation fees, holiday and vacation time, and other benefits associated with the University of Washington.

FELLOWSHIP STRUCTURE – FIRST YEAR

The first year of the fellowship is conducted at the University of Washington School of Pharmacy in Seattle. **The objective of the first year is to provide the fellow with the intellectual tools necessary for pharmacoeconomic research.** They will receive an overview of pharmaceutical economics and general health policy and learn methods of economic assessment, health services research design, and statistical analyses.

Fellows will be expected to begin the program in the first week of July and complete didactic requirements by June of the following year. Formal course work will be provided primarily by the Departments of Pharmacy, Health Services, Epidemiology, and Biostatistics but will draw upon the multidisciplinary resources of the University of Washington.

During the first few months of the program, fellows will work with the program directors at the University of Washington and Bayer HEOR to design an individualized program to meet established research goals. They will meet with their advisor on a regular basis to review progress, discuss their work, and review and assign current research articles or for other scholarly endeavors. In addition to their other classwork, fellows will participate in a research seminar designed to provide them with experience in evaluation, critiquing, preparing, and presenting scholarly research during each quarter of the first year and will be expected to present a report on their independent research once during the first year. The program is rigorous, requiring up to 45 hours a week in classwork and independent study.

Fellows will be required to participate in at least one ongoing research project with a member of the faculty and are encouraged to develop at least one research proposal under the supervision of the faculty mentor and Bayer US HEOR team. Research projects shall be implemented while fellows are at the University of Washington but may continue into the second year of the program. Research will be managed by fellows under the supervision of University of Washington faculty and Bayer researchers.

FELLOWSHIP STRUCTURE – SECOND YEAR

During the second year of training, the fellow will be part of Bayer's US HEOR team and will conduct an approved pharmacoeconomic study. **This part of the program is designed to allow fellows to learn about the role of pharmacoeconomic research in the drug development and evaluation process within the industry setting.**

The fellow will be awarded a Master's Degree from the University of Washington upon completion of all course requirements and a thesis project.

The research may be on an existing or experimental product, a therapeutic class of drugs, or a disease state of interest to Bayer (oncology, cardiology, women's healthcare therapeutic areas, or others with Bayer approval).

In addition to completing their individual research project(s), fellows will participate in ongoing pharmacoeconomic evaluations or other projects assigned by their Bayer preceptor. They will have the opportunity to interact with departments involved in clinical research, commercial development, and regulatory affairs at Bayer to learn how economic analyses are used by the pharmaceutical industry and will also learn how Bayer uses clinical, epidemiologic, and pharmacoeconomic data to support the utilization of its products. Fellows will be expected to present the results of any individual research projects to the University of Washington faculty, graduate students, and other post-doctoral fellows as well as to their colleagues at Bayer.



ABOUT THE UNIVERSITY OF WASHINGTON

The University of Washington is a **national leader in health sciences education** and has been consistently listed in *U.S. News and World Report* as one of the top ten such 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. It fosters a highly collegial atmosphere between disciplines, creating a particularly attractive environment for such partnerships between the public and private sectors as the UW/Bayer Fellowship.

To coordinate its strong existing program and better serve the pharmaceutical community, the UW School of Pharmacy has established the Comparative Health Outcomes, Policy, and Economics (CHOICE) Institute within which this fellowship is located. The CHOICE Institute has helped the University of Washington become a nationally recognized center for pharmacoepidemiology, pharmacoeconomics, comparative effectiveness research, and pharmaceutical outcomes research.

The School's Department of Pharmacy 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 research scientist, and all have an extensive history of effective pharmacoeconomic and pharmacoepidemiologic research.

FACILITIES

Fellows will be provided with work space and have access to the University's excellent research facilities, including health sciences and economic research libraries and computing facilities. In addition, during their time at Bayer, they will be provided with office space and have access to the Health Economics and Outcomes Research Department's databases and data analytics team.

ELIGIBILITY

Applicants for this fellowship must have a degree in pharmacy or health-related discipline 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 curriculum vitae, a letter describing their career goals, and three letters of recommendation. Selection of fellows will be made by a steering committee composed of the University of Washington faculty members and representatives from Bayer.

APPLICATION AND CONTACT INFORMATION

The application deadline is December 14, 2018.

Applicants must be permanent residents or citizens of the United States.

Program Information: <http://sop.uw.edu/choice>

Contact: Shannon Dwyer, Graduate Program Advisor
tdci@uw.edu

Ryan Hansen, PharmD, PhD
rhansen@uw.edu

OR

Lauren Chin, PharmD
lauren.chin1.ext@bayer.com

Website for information and application:
<http://sop.uw.edu/BayerFellow>



FELLOWS WILL BE EXPECTED TO BEGIN THE PROGRAM AT THE UNIVERSITY IN JULY 2019 AND ON SITE WITH BAYER IN JULY 2020.

THE UNIVERSITY OF WASHINGTON TEAM



"The UW/Bayer Fellow Program showcases how we value cultivating strong, external collaborations to increase the professional development opportunities for our students."

Sean D. Sullivan, BScPharm, PhD

Professor and Dean, UW School of Pharmacy



"The UW/Bayer Fellow Program is an excellent example of how an academic/industry partnership can produce high-quality HEOR researchers."

Anirban Basu, MS, PhD

Stergachis Family Endowed Professor and Director
The Comparative Health Outcomes, Policy, and Economics (CHOICE) Institute, Department of Pharmacy



"The UW/Bayer Fellow Program benefits not only the student who receives the highest-quality HEOR education and training, and Bayer, which is able to employ a well-trained staff member, but also our society, as more well-designed HEOR studies should lead to better healthcare resource allocation."

Louis Garrison, PhD

Professor Emeritus, The CHOICE Institute, Department of Pharmacy



"The Bayer/UW Fellow Program is an excellent and rewarding opportunity to meet talented recent graduates and help them transition into health economics and outcomes research professionals."

Ryan Hansen, PharmD, PhD

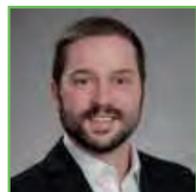
Assistant Professor, Department of Pharmacy, The CHOICE Institute, Bayer/UW Fellowship Director



"The UW/Bayer Fellowship offers an exciting opportunity for students to experience the best of both academia and the pharmaceutical industry and to launch their professional career with a full complement of HEOR skills."

Beth Devine, PharmD, MBA, PhD

Associate Professor; Director of Graduate Programs, The CHOICE Institute



"The UW/Bayer fellowship offers a wonderful opportunity for fellows to develop a solid framework in HEOR in both the academic and industry setting. Working with the exceptional faculty and professionals at UW and Bayer helps the fellow become fully engaged in different practical areas."

Thomas Hopkins, PharmD

Bayer/University of Washington First-year Fellow, 2017–2019
University of Washington

UNIVERSITY OF WASHINGTON PROGRAM TEAM

- Claire Forster, Assistant Dean of Advancement and Corporate Relations
- Ryan Hansen, PharmD, Assistant Professor, Department of Pharmacy
- Shannon Dwyer, Graduate Program Advisor

BAYER PROGRAM TEAM

- Todd Williamson, Vice President, US Health Economics and Outcomes Research
- Ronald Aubert, PhD, Director, Research, US Data Generation and Outcomes Research
- Jennifer Cameron, Deputy Director, Operations and Projects, US Health Economics and Outcomes Research
- Amy Law, PharmD, Deputy Director, US Data Generation and Outcomes Research

UNIVERSITY OF WASHINGTON, SCHOOL OF PHARMACY CHOICE INSTITUTE FACULTY MEMBERS

- Joseph Babigumira, MBChB, MS, PhD, Assistant Professor, Global Health; Adjunct, Dept. of Pharmacy
- Aasthaa Bansal, MS, PhD, Assistant Professor, Dept. of Pharmacy
- Douglas Barthold, PhD, Research Assistant Professor, Department of Pharmacy
- Anirban Basu, MS, PhD, Stergachis Family Endowed Professor and Director, CHOICE Institute, Dept. of Pharmacy; Adjunct, Economics
- Denise Boudreau, MS, PhD, Affiliate Professor, Dept. of Pharmacy
- Brian Bresnahan, PhD, Research Associate Professor, Dept. of Radiology; Adjunct, Dept. of Pharmacy
- Josh J. Carlson, MPH, PhD, Associate Professor, Dept. of Pharmacy; Associate Director of Graduate Programs, CHOICE Institute; Bayer/UW Fellowship Director
- Beth Devine, PharmD, MBA, PhD, Associate Professor; Adjunct, School of Public Health and School of Medicine; Director of Graduate Programs, CHOICE Institute
- David Flum, MD, MPH, Professor and Associate Chair of Research; Director of the Surgical Outcomes Research Center (SORCE); Adjunct Professor, Dept. of Pharmacy
- Jacqueline Gardner, MS, PhD, Professor Emeritus, Dept. of Pharmacy
- Louis Garrison, PhD, Professor Emeritus, CHOICE Institute Dept. of Pharmacy
- Bernardo Goulart, MD, MS, Assistant Professor, Seattle Cancer Care Alliance, Thoracic/Head and Neck; Adjunct, Dept. of Pharmacy
- Shelly Gray, PharmD, MS, Shirley & Herb Bridge Endowed Professor, Dept. of Pharmacy; Director, Plein Center for Geriatric Pharmacy Research
- Ryan Hansen, PharmD, PhD, Assistant Professor, CHOICE Institute Dept. of Pharmacy
- Thomas Hazlet, PharmD, DrPH, Associate Professor & Director, MS in Biomedical Regulatory Affairs Program, Dept. of Pharmacy; Adjunct, Law & Health Services
- Jerry Jarvik, MD, MPH, Professor, Neuroradiology; Adjunct Professor, Dept. of Pharmacy
- Larry Kessler, ScD, Professor, Health Services; Adjunct Professor, Pharmacy
- Gary Lyman, MD, MPH, Co-Director, HICOR (Hutchinson Institute for Cancer Outcomes Research), Fred Hutchinson Cancer Research Center; Professor, School of Medicine; Affiliate Professor, Dept. of Pharmacy and School of Public Health
- Zachary Marcum, PharmD, MS, PhD, Assistant Professor, Dept. of Pharmacy; Assistant Director for Research, Plein Center for Geriatric Pharmacy Research, Education and Outreach
- Donald Patrick, MS, PhD, Professor, Health Services; Adjunct, Depts. Pharmacy, Sociology, Rehabilitation Medicine & Epidemiology; Director, Seattle Quality of Life Group
- Scott Ramsey, MD, PhD, Professor of Medicine; Adjunct, Dept. of Pharmacy
- Andy Stergachis, PhD, Associate Dean for Research, Graduate Programs & New Initiatives, School of Pharmacy; Director, Global Medicines Program; Professor of Pharmacy and Global Health; Adjunct, Epidemiology & Health Services
- Sean D. Sullivan, BScPharm, PhD, Professor and Dean, School of Pharmacy; Professor of Health Services
- David Veenstra, PharmD, PhD, Professor and Associate Director, CHOICE Institute, Dept. of Pharmacy
- Davene Wright, Assistant Professor, Dept. of Pediatrics, Division of General Pediatrics, Seattle Children's; Adjunct, CHOICE Institute, Dept. of Pharmacy





Bayer is a Life Science company with a more than 150-year history and core competencies in the areas of health care and agriculture. With our innovative products, we are contributing to finding solutions to some of the major challenges of our time.

A growing and aging world population requires an adequate supply of food and improved medical care. Our research and development activities are therefore focused on improving people's quality of life by preventing, alleviating, and treating diseases.

Our goal is to achieve and maintain leadership positions in our markets. In this way, we create value for our customers, stockholders, and employees, while at the same time strengthening the company's earning power. To this end, our strategy is designed to help solve some of the most pressing challenges facing mankind.

HEADQUARTERS IN WHIPPANY

In the US, Bayer opened its headquarters in Whippany, NJ, in mid-2013, bringing together employees from several sites in the New York/New Jersey area. The 700,000 sq. ft. state-of-the-art facility is situated on 94 acres of property in a thriving suburb, with easy access to several major highways. The secure-access site features desirable amenities, such as a fitness center, large café, outdoor dining area, medical suite, coffee bar, company store, and a modern, open-office floor plan.

PHARMACEUTICALS

Bayer's Pharmaceutical Division in the US, headquartered in Whippany, NJ, focuses on researching, developing, and marketing specialty-focused innovative medicines that provide significant clinical benefit and value, primarily in the therapeutic areas of cardiology, oncology, gynecology, and hematology. In this way, we are addressing the growing requirements of patients, physicians, healthcare payers, and regulatory agencies. With our innovative products, we seek to achieve therapeutic benefit for patients while at the same time satisfying the growing requirements of physicians and health insurers.

BAYER'S LIFE VALUES

By working sustainably and accepting our role as a socially and ethically responsible corporate citizen—and by committing to our Bayer values—we create benefits for the communities in which we live. Science For A Better Life: this is the promise we all give to our stakeholders.





YOUR TIME AT BAYER

As a fellow at Bayer, you will be exposed to a variety of exciting opportunities that will enable you to become a leader in the pharmaceutical industry. Bayer’s new employer brand promise describes what we expect from our employees and potential candidates and explains how each employee can succeed in the company. This employer brand promise, “Passion to Innovate | Power to Change” exemplifies our presence as a global giant and is supported by four underlying key promises that the fellow can expect upon entering the company. These four promises serve as pillars for what makes our working culture so special.

PASSION TO INNOVATE | POWER TO CHANGE

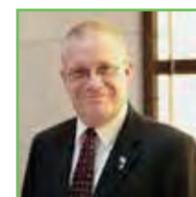
- 1 At Bayer, you have the freedom and the license to question the status quo and think ahead.
- 2 At Bayer, you can engage in open and inspiring work with people who share your passion to turn pioneering ideas into life-changing solutions.
- 3 At Bayer, our ideas are inspired by society’s most fascinating challenges to enhance the lives of many, and our thinking is driven by our customers’ needs.
- 4 At Bayer, you are empowered to make an impact by being part of a leading company that has the power and endurance it takes to improve life—not only in today’s, but in tomorrow’s, world.

THE BAYER TEAM



“Bayer Pharmaceuticals Medical Affairs in collaboration with the University of Washington Fellow Program provides graduates a great foundation to successfully launch a promising career into the healthcare industry. This program provides fellows with new ideas and valuable contributions to the company, allowing for professional and personal growth.”

Dario Mirski, MD
Vice President/Head of Medical Affairs



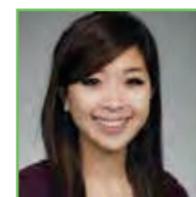
“The Fellow Program is a fantastic opportunity for Bayer to attract and work with some of the top up-and-coming talent in the academic environment. Our two-year programs give the students a year at their school to settle in, conduct research, and begin to know their sponsor through a series of meetings regarding their ongoing work at the University but also about their interests in what they want to study when they arrive at Bayer for their second year. The second year, the fellows spend on site at Bayer, giving them first-hand experience on the inner workings of a pharma company and also giving Bayer an extremely bright and highly motivated person to work with over the course of the year.”

Todd Williamson, MsC
Vice President, US Data Generation and Observational Studies



“The UW/Bayer Fellowship offers an excellent opportunity for Bayer to cultivate the next generation of high-quality HEOR researchers and prepare them for a successful career beyond traditional settings for pharmacy students.”

Amy Law
Deputy Director, Health Economics and Outcomes Research



“The second year at Bayer provides fellows with unprecedented opportunities to apply and strengthen their research skills acquired through the first year of academic training. Fellows obtain a first-in-class experience at Bayer through close mentorship, cross-functional collaboration, and hands-on exposure to lead and conduct research to support the value of pharmaceuticals across the product life cycle.”

Lauren Chin, PharmD
Bayer/University of Washington First-year Fellow, 2017–2019
University of Washington

FELLOWSHIP ALUMNI



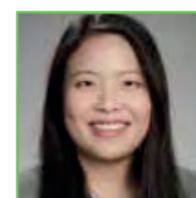
“The UW/Bayer Fellowship provided me with an excellent combination of academic and practical experience that has allowed me to succeed in my current role. This fellowship helped me further develop both a business and research-oriented mindset that allows me to flourish and innovate in an evolving healthcare landscape increasingly characterized by discussions on cost and value.”

Justin Yu, PharmD, MSc
Bayer/University of Washington Fellow, 2014–2016
Associate Director, US Health Economics and Outcomes Research, Ophthalmology, Novartis



“The UW/Bayer Fellowship was a unique opportunity to strengthen my research methodology in HEOR and extend my understanding of the US healthcare market business. Built around mentorship which nurtured success, this program was a professional springboard that has enabled me to succeed in my current position.”

Jean Malacan, PharmD, EM, MSc
Bayer/University of Washington Fellow, 2015–2017
Manager, Global Health Economics, Amgen



“Being a part of the UW/Bayer Fellowship has provided me with the skills and experiences to pursue a career I feel passionate about and to continue engaging in the discourse of population health, affordable care, and new health technologies.”

Lucille Sun, PharmD, MSc
Bayer/University of Washington Fellow, 2016–2018
Health Economics & Outcomes Manager, MedImpact Healthcare Systems, Inc.



Bayer

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