

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

**PhD in Health Economics and
Outcomes Research**
Information Session

October 18, 2023
9-10 am Pacific Time

THE CHOICE INSTITUTE

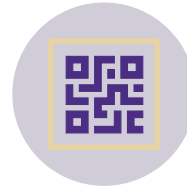
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AGENDA



Introductions



**About The
CHOICE Institute**



**PhD program
structure**



**Application
process**



Q & A

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INTRODUCTIONS



Anirban Basu, PhD
Professor & Stergachis
Family Endowed Director



Josh Carlson, MPH, PhD
Professor & Graduate Program
Director




Marina Gano, M.Ed.
Graduate Program &
Operations Manager



**Felipe Montano-Campos,
MA, MS**
HEOR PhD Student



We are a global leader in generating knowledge to improve individual and population health through transformative learning, research, and dissemination about the effectiveness, safety, and value of medical products, services, and policies.



WHO WE ARE

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MISSION

Research: Develop innovative methods and generate actionable evidence about the effectiveness, safety, and value of medical products and services that improve decision making in health care and policy.

Training: Provide transformative training in health economics, outcomes research, and policy analysis to meet contemporary health care challenges regionally, nationally, and globally.

Service: Be a leading resource on the effectiveness, safety, and value of medical products and services by providing expertise and facilitating collaborations at the regional, national, and global level.



CORE FACULTY

Assistant Professors

Douglas Barthold

Clayton English

Noemi Kreif

Kyu Eun Lee

Jing Li

Associate Professors

Jenny Bacci

Aasthaa Bansal

Ryan Hansen

Professors

Anirban Basu

Josh Carlson

Shelly Gray

Andy Stergachis

Sean Sullivan

David Veenstra

Emeritus Professors

Beth Devine

Lou Garrison

ADJUNCT & AFFILIATE FACULTY

Adjunct Faculty

David Au, VA
Puget Sound

Brian
Bresnahan,
Radiology

Todd Edwards,
HSPOP

David Flum,
Surgery

Lurdes Inoue,
Biostatistics

Jerry Jarvik,
Medicine

Larry Kessler,
HSPOP

Gary Lyman,
Medicine

Scott Ramsey,
Medicine

Affiliate Faculty

Blythe Adamson,
Flatiron Health

Maria Agapova,
AbbVie

Carrie Bennette,
Paradigm

Lisa Bloudek,
Curta

Denise Boudreau,
Genentech

William
Canestaro, WRF

Pete Fullerton,
Strategic Pharmacy
Innovations

Jens Grueger,
Boston Consulting
Group

Jan Hansen,
Genentech

Brett Hauber,
Pfizer

Zsolt Hepp,
Seagen

Nina Hill, HEOR
Consultancy

Eric Johnson,
Northwest
Permanente

Thomas Kanyok,
Cepheid

Zachary Marcum,
Aetion

Joshua Roth,
Pfizer

Parth Shah, Fred
Hutch

Lotte Steuten,
OHE

Amy Tung, Curta

Sepideh Varon,
AbbVie

Elisabeth Vodicka,
Pfizer

John Watkins,
Premira Blue
Cross

Jennifer Whiteley,
Genentech

Davene Wright,
Harvard Medical
School

Kai Yeung,
Amazon

Marita
Zimmermann,
IDM

OUR STAFF



**Leana De la
Torre**

Online Certificate
Program Manager



**Marina
Gano**

Graduate Program
& Operations
Manager



**Greg
Guzauskas**

Senior Research
Scientist



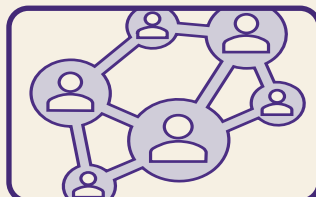
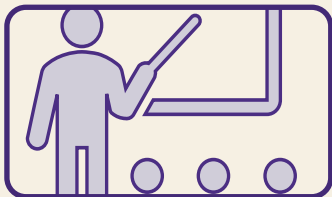
Linda Luu

Research
Scientist

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ALUMNI CAREER PATHS



ACADEMIA

Jonathan Watanabe, PharmD, MS, PhD ('12)

Professor of Clinical Pharmacy & Associate Dean of Assessment and Quality, UC Irvine

Meng Li, PhD ('18)

Assistant Professor, Center for the Evaluation of Value and Risk in Health (CEVR)

Mark Bounthavong, PharmD, PhD ('18)

Associate Professor of Clinical Pharmacy, UC San Diego

Kangho Suh, PharmD, PhD ('19)

Assistant Professor, University of Pittsburgh School of Pharmacy

Boshen Jiao, PhD ('22)

Postdoctoral Research Fellow, Harvard T.H. Chan School of Public Health

INDUSTRY

Elisabeth Vodicka, PhD ('18)

Director, Value & Evidence, Vaccine Pipeline, Pfizer

Lauren Strand, PhD ('21)

Associate Director, HEOR, at Alkermes

Tricia Rodriguez, PhD ('21)

Principal Applied Scientist at Truveta

Naomi Schwartz, PhD ('21)

Manager, Health Economics and Outcomes Research, Seagen

Sabra Zaraa, PhD ('23)

Senior Scientist, Oncology Outcomes Research at AstraZeneca

RESEARCH

Marita Zimmermann, PhD ('16)

Senior Research Economist, Institute for Disease Modeling

Nathaniel Hendrix, PharmD, PhD ('20)

Data Scientist, American Board of Family Medicine

Enrique Saldarriaga, PhD ('22)

Prevention Effectiveness Fellow, Centers for Disease Control and Prevention

Woojung Lee, PhD ('22)

Associate-Health Care, Analysis Group

Samantha Clark, PhD ('22)

Senior Associate, Medicus Economics

Yilin Chen, PhD ('23)

Senior Research Associate, Curta

Current PhD Students



Shiven Bhardwaj, PharmD, MAS
PhD Student (Year 2)
DISSERTATION TOPIC: TBD
ADVISOR: Doug Barthold



Tori Dayer, PharmD
PhD Student (Year 3)
DISSERTATION TOPIC: TBD
ADVISOR: Sean Sullivan



Julia Fox, MA
PhD Student (Year 2)
DISSERTATION TOPIC: TBD
ADVISOR: Jing Li



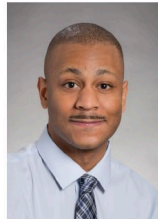
Sara Khor, MASc
PhD Student (Year 5)
DISSERTATION TOPIC: *Incorporating Equity into Healthcare Decision Making Around New Technologies*
ADVISORS: Aastha Bansal & Josh Carlson



Ashley Tabah, MS, MPH,
PhD Student (Year 4)
DISSERTATION TOPIC: *Closing the coverage gap: Understanding the cost and adherence effects for dementia*
ADVISOR: Ryan Hansen



Emily Callen, MPH
PhD Student (Year 2)
DISSERTATION TOPIC: TBD
ADVISOR: Dave Veenstra



Ronald Dickerson, MPH, MA
PhD Student (Year 3)
DISSERTATION TOPIC: TBD
ADVISOR: Dave Veenstra



Karris Jeon, MS
PhD Student (Year 2)
DISSERTATION TOPIC: TBD
ADVISOR: Josh Carlson



Felipe Montañó-Camp
PhD Student (Year 3)
DISSERTATION TOPIC: TBD
ADVISOR: Anirban Basu



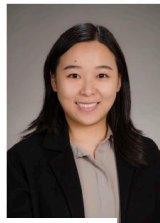
Jacinda Tran, PharmD, MBA
PhD Student (Year 5)
DISSERTATION TOPIC: *Understanding HIV pre-exposure prophylaxis use in the United States and the potential impact of community pharmacists*
ADVISOR: Ryan Hansen



Emma Cousin, PharmD
PhD Student (Year 2)
DISSERTATION TOPIC: TBD
ADVISOR: Sean Sullivan



Zizi Elsis, MS, BPharm
PhD Candidate (Year 4)
DISSERTATION TOPIC: TBD
ADVISOR: Anirban Basu



Shangqing Joyce Jiang, MPH
PhD Student (Year 5)
DISSERTATION TOPIC: *Disease Risk Prediction and Value of Polygenic Risk Scores in Colorectal Cancer Screening*
ADVISOR: Dave Veenstra



Ifechukwu (Ben) Nwogi, MPH
PhD Student (Year 3)
DISSERTATION TOPIC: TBD
ADVISOR: Josh Carlson



Rachel Wittenauer, MPH
PhD Student (Year 4)
DISSERTATION TOPIC: *Equitable access and reimbursement for pharmacy-based services: A case study of adult vaccinations*
ADVISOR: Andy Stergachis



Huihsuan Chan, MHS
PhD Student (Year 1)
ADVISOR: Josh Carlson



Zilin Cheng, MS
PhD Student (Year 1)
ADVISOR: Jing Li



Manpreet Dhankhar, MS
PhD Student (Year 1)
ADVISOR: Anirban Basu

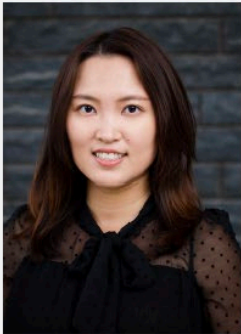


Carlos Pineda Antunez, MS
PhD Student (Year 1)
ADVISOR: Douglas Barthold

2023 PhD Graduates

CLASS OF 2023

DOCTOR OF PHILOSOPHY (HEALTH ECONOMICS & OUTCOMES RESEARCH)



Yilin Chen

MPH Global Health 2018, University of Washington; BS, Global Health, Wuhan University, China

DISSERTATION: *Evaluating Heterogeneity in Treatment Effects and Economic Value of Tumor-Agnostic Drugs*

CHAIR: Josh Carlson

CURRENT POSITION: Senior Research Associate, Curta, Seattle, WA



Sabra Zaraq

MPH 2018, University of Washington; PharmD 2015, University of Monastir

Dissertation: *Health and economic burden of substandard and falsified medicines*

CHAIR: Andy Stergachis

CURRENT POSITION:

Senior Scientist, Oncology Outcomes Research at AstraZeneca



Samantha Clark

MS 2013, Johns Hopkins Bloomberg School of Public Health; BA 2008, St. Mary's College of Maryland

DISSERTATION: *Investigating the effect of Gleevec list price on adherence and outcomes in Medicare patients with chronic myeloid leukemia*

CHAIR: Anirban Basu

CURRENT POSITION: Senior Associate at Medicus Economics, Boston, MA



OUR PRIMARY RESEARCH COMPETENCIES

Research Emphasis (Engaged CHOICE Faculty)	Theory/Methods	Application
HEALTH ECONOMICS Basu, Carlson, Devine, Garrison, Hansen, Kreif, Li, Sullivan, Veenstra	Cure Modeling, Machine Learning, Causal inference, CEA, Value of information analyses	Cancer, Diabetes, Mental Health, Pharmacogenomics
OUTCOMES RESEARCH Bacci, Bansal, Basu, Carlson, Devine, English, Garrison, Gray, Hansen, Lee, Stergachis, Sullivan, Veenstra	Observational and claims data methods, pragmatic trial designs, preference elicitation, evidence synthesis and meta-analysis, benefit- risk assessments, pharmacoepidemiology, pharmacovigilance, implementation science, qualitative methods	Treatment sequencing, adverse events, organ allocation, access to cancer clinical trials, precision medicine, drug safety, diagnostic imaging, organ transplantation, cystic fibrosis, medication adherence care transition, global health pipeline of medicine and vaccines
POLICY EVALUATION Bacci, Basu, Carlson, Hansen, Hazlet, Kreif, Lee, Li, Stergachis, Sullivan	Interrupted Time Series, regression discontinuity, data visualization, decision modeling	Value-based insurance designs, cancer drug pricing, performance-based risk sharing, opioid prescribing, marijuana laws, liver transplantation, FDA regulatory structure evaluation, Affordable care Act, Physician payment reform and contracts.

OUR COMMITMENT TO DIVERSITY

THE CHOICE INSTITUTE DIVERSITY ENDOWED GRADUATE FELLOWSHIP:

Recipients will be underrepresented students in the field of health economics, outcomes research, and policy with deep personal experience with, and connection to, diverse cultures.



CHOICE Statement on Diversity, Equity, and Inclusion

CHOICE is committed to creating an inclusive academic community where every individual is treated fairly and with dignity and respect. We strongly believe that diversity enriches learning, broadens the perspectives of all in our program, and improves our sense of community. Diversity requires an atmosphere of inclusion, tolerance, respect, and equity.

Our equality and diversity principles:

- We value the tremendous diversity of the human experience and believe that this diversity strengthens our communities and our program.
- We believe that discrimination or exclusion based on individual characteristics and circumstances, such as age; disability; caring or dependency responsibilities; gender or gender identity; marriage and civil partnership status; political opinion; pregnancy and maternity; race, color, caste, nationality, ethnic or national origin; religion or belief; sexual orientation; socio-economic status; or other distinctions, is unjust and represents a waste of talent and a denial of opportunity for self-fulfillment.
- We recognize that patterns of under-representation and differences in outcomes at CHOICE can be challenged through positive action.
- We respect the rights of individuals, including the right to hold their own opinions and beliefs, but will not allow these opinions to be manifested in a way that is hostile or degrading to others.
- We expect commitment and involvement from all our faculty, staff, and students in working towards the achievement of our vision.



IN-HOUSE DATABASES



IBM-Truven MarketScan data (2007 – 2020)



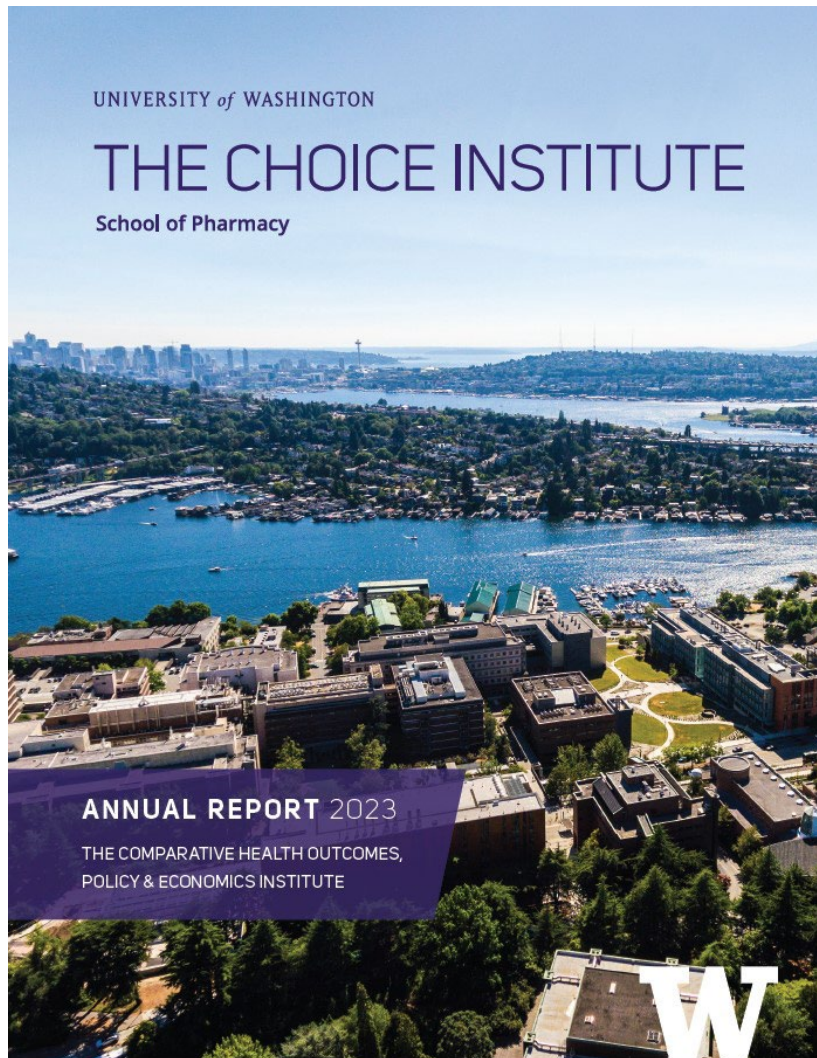
HRS-linked Medicare database



Komodo Health (2015 – Current)



2022–2023 Annual Report



Access online:

<https://sop.washington.edu/choice/who-we-are/annual-reports-newsletters/>



CHOICE PhD Program Structure



GRADUATE TRAINING: OVERVIEW

- > **Our PhD program prepares students to become independent scientists and leaders in health economics, outcomes research and policy evaluation, with special emphasis on the pharmaceutical sector.**
- > **CURRENT STUDENTS**
 - 19 PhD students
 - 12 MS fellows

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FIELDS OF STUDY

**Health
economics**

**Decision
sciences**

Biostatistics

Epidemiology

**Clinical trial
design and
analysis**

Health policy



PHD PROGRAM CURRICULUM OVERVIEW

- > The program of course work can be divided into four components:
 1. Core courses
 2. Electives
 3. Seminars
 4. Independent research and dissertation

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CORE PROGRAM

Course	Credit
EPI 512, 513 Epidemiologic Methods I & II	8
BIOST 511, 512, 513 (or 517-518) Medical Biometrics I, II & III	8-12
HEOR 545 Methods in Pharmaceutical Policy Analysis	4
HEOR 520 Pharmacoepidemiology	3
HEOR 530 Economic Evaluation in Health and Medicine	3
HEOR 533 Advanced Methods in Economic and Outcomes Evaluation in Health and Medicine	3
HEOR 534 Assessing Outcomes in Health and Medicine	3
HEOR 540 Health Economics	3
HSERV 523 Advanced Health Services Research Methods I: Large Public Databases; Big Data	4
HEOR 551 Advanced Health Services Research Methods III: Casual Inference Using Observational Data	4
BIOSTAT 537 Survival Data Analysis in Epidemiology	4
HEOR 597 Graduate Seminar	12
HEOR 800 Dissertation	27
Electives	14
HEOR 600 Independent Study	18
TOTAL MINIMUM CREDITS	118*

**122 minimum credits if student takes the BOST 511, 512, & 513 series.*

PROGRESSION TO DOCTORAL DEGREE

First & Second Year:

- Completion of core courses and preliminary examinations.
- Begin the process of determining their potential interests in dissertation research.

Summer Quarter after Second Year:

- Explore potential dissertation topics and data sources available

Third Year:

- Selection of dissertation topic (with CHOICE faculty approval of short proposal) and establishment of Supervisory Committee.
- Completion of specialization coursework and Dissertation Proposal Defense.

Fourth Year+:

- Completion of dissertation and Dissertation Defense.



Frequently Asked Questions

> Funding

- First 2 years guaranteed funding
- 2+: Responsibility shifts but students remain funded (Path to independence)
- Appointments vary by student, but core is 50% FTE as part of a fellowship, research assistantship, or teaching assistantship
 - > Stipend varies but is approximately ~\$2,863 / month at Intermediate level
 - > Possible to supplement with other UW or external work, but must be balanced with workload and academic progress
 - > Includes health insurance

> Waiving required courses

> After graduation:

- 1/3 academia, 1/3 industry, 1/3 governmental or non-profit organizations

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APPLICATION PROCESS



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OVERVIEW

- > **Application Deadline:** December 15, 2023
 - > All application materials should be received by this date.
- > **Interview Notification:** Mid January 2024
- > **Interviews:** Late January
- > **Offer Notification:** Mid February
- > **Acceptance Deadline:** April 15, 2024
- > **Program Start Date:** Late September 2024

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PREREQUISITES

- > **Typical academic backgrounds:**
 - Students with Master's degrees in fields *such as* epidemiology, economics, statistics or public health
 - Students with professional degrees in pharmacy, medicine or other health-related fields who have strong quantitative skills
- > **Other prerequisites:**
 - Must meet all minimum Graduate School requirements, including a minimum grade point average of 3.0.
 - Competitive applicants have a GPA of 3.5 and above.
- > **GRE scores are required for all applicants**
- > **Non-native English speakers are required to demonstrate English proficiency as per Graduate School Policy 3.2**
 - Minimum TOEFL score required is 100
 - Minimum IELTS score is 7.5

APPLICATION TIPS

- > **Contact your recommenders early**
 - Include a “cheat sheet” about yourself and the program along with your request
- > **Submit a strong, focused, and well-edited CV**
 - Research skills
 - Data analysis skills
 - Relevant rotations, electives, courses, and presentations
 - Leadership experience
- > **Highlight any projects relevant to HEOR**
- > **Include any publications you have contributed to, even if not yet in press**

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HOW TO APPLY

- > **Apply directly to the UW Graduate School**
- > **Go to:** https://apply.grad.uw.edu/portal/gr_app
 - > Select “Start Graduate Application”
 - Under Program Selection, choose the following:
 - > Application type: Graduate
 - > Program: Pharmacy – Health Economics & Outcomes Research (PhD)
 - Quarter and Year: Fall 2023
- **Mailed application materials are not accepted**
- **Official transcripts are only required if offered admission**
 - unofficial transcripts are scanned and uploaded into the online application

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Application Fee Waiver Information

- > **Financial Need Fee Waivers are available through the Graduate School**
- > **Fee waiver requests must be submitted at least 7 days before the deadline!**
- > **Washington State Need Grant Program eligibility criteria is used to determine financial need.**
 - **Waivers are based on the 100% Median Family Income (MFI).**
 - **Reported income should be based on the most recent tax year.**
- > **For more information on how to request a waiver:**
<https://grad.uw.edu/prospective-students/how-to-apply/application-fee-waivers/>

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Q&A



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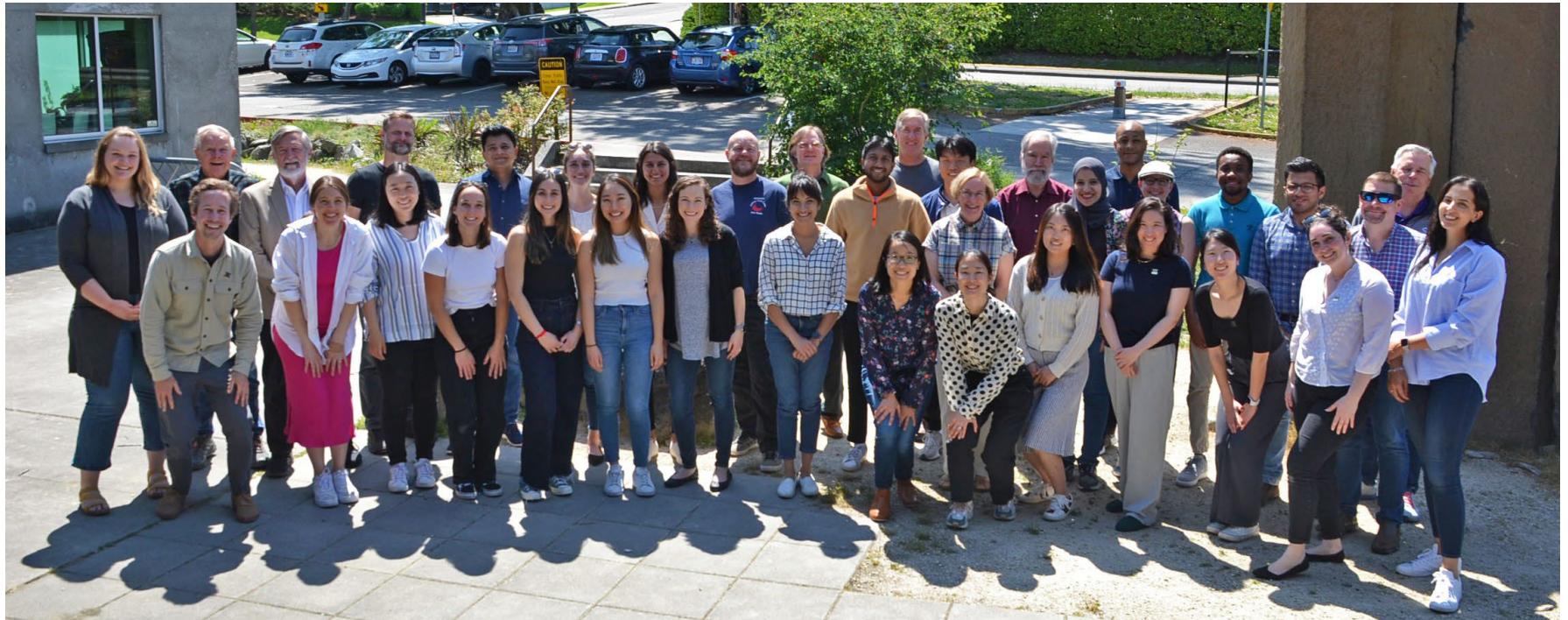
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CONTACT US

- > **Marina Gano, M.Ed.**
Graduate Program & Operations Manager
206-616-1383 | uwsopchoice@uw.edu
- > **Josh Carlson, MPH, PhD**
Professor and Graduate Program Director
carlojj@uw.edu
- > **Felipe Montano-Campos, MA, MS**
3rd year HEOR PhD Student
Student Admission Committee Member
fmontano@uw.edu

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THANK YOU!

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