

# HONGJIE (HARRY) QIAN

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## EDUCATION

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<b>Master of Science in Biostatistics</b>	<b>Sept 2023 - Jun 2025</b>
University of California San Diego, La Jolla, CA	GPA: 4.0/4.0
<b>Bachelor of Science in Pharmacy</b>	<b>Sept 2019 - Jun 2023</b>
China Pharmaceutical University, Nanjing, PR China	GPA: 3.8/4.0
<b>Bachelor of Science (Hons) in Biochemistry and Pharmacology</b>	<b>Sept 2019 - Jun 2023</b>
University of Strathclyde, Glasgow, Scotland	GPA: 3.7/4.0

## RESEARCH EXPERIENCE

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**Patient-Reported Outcomes of VeNS in PTSD-Related Insomnia** **Nov 2024–Present**  
Research Analyst. Supervised by Dr Xin Tu & Dr Peter Colvonen, UC San Diego Psychiatry & VA San Diego

- Conducted a randomized, double-blinded, sham-controlled trial of vestibular nerve stimulation (VeNS) for efficacy investigation in reducing moderate-to-severe insomnia symptoms among veterans with PTSD.
- Analyzed patient-reported outcomes, SF-36, with a structural equation model for sleep latency and quality improvements in 94 participants from Hong Kong, China and 52 participants from Northern Ireland.
- Validated VeNS as an alternative low-risk treatment for insomnia via data integrity and time-of-day effects.

**DDI Assessment in Medicare AFib Patients Using SSRIs & Anticoagulants** **Jul 2024–Present**  
Research Assistant. Supervised by Dr Inmaculada Hernandez, Division of Clinical Pharmacy, UC San Diego

- Designed a nested case-control study with Medicare data (2012-2021) to examine bleeding risks from SSRIs combined with warfarin or DOACs in atrial fibrillation (AFib) patients.
- Defined drug exposure based on a 30-day hazard period, using conditional Logistic regression for analysis.
- Aiming to fill evidence gaps in drug safety related to potential drug-drug interaction (DDI), enhancing AFib management strategies through real-world data (RWD) insights.

**ICD-10 Code Disease Severity Modeling** **Jun 2024 - Sept 2024**  
Research Intern, Data Science & Digital Science - Global Development, Johnson & Johnson Innovative Medicine

- Designed a pipeline matching the FDA Adverse Event Reporting System and FDA OpenLabel databases (2019 - present, 13M reports) for on-market drugs for drug safety monitoring and regulatory compliance.
- Used EHRs & claims across therapeutic areas to define clinical trial cohorts by mapping ICD-10/CPT codes to adverse events via LLMs and GenAI, understanding disease progression and patient outcomes.
- Validated our reference set of severe disease indicators with RWD and identified impacts of social determinants on trial site selection with explainable AI models, promoting DEI in trials.

**ACEi Discontinuation Pattern in Medicare SGLT2i Users** **Jan 2024 - Aug 2024**  
Research Assistant. Supervised by Dr Inmaculada Hernandez, Division of Clinical Pharmacy, UC San Diego

- Conducted a retrospective cohort study using Medicare data in over 2M users (2012-2020) to examine ACEi use and discontinuation among type 2 diabetes patients initiating SGLT2i.
- Discovered ACEi discontinuation was significantly associated with certain demographics and comorbidities, emphasizing the impact of chronic conditions and racial disparities on medication adherence.
- Highlighted synergistic effects of SGLT2i & ACEi co-medication on renal protection and health outcomes.

**Doxorubicin & Trastuzumab Cardiotoxicity QSP-PBPK-TD Platform** **Apr 2022 - Aug 2023**  
Research Assistant. Supervised by Dr Hua He, Center of DMPK, China Pharmaceutical University

- Developed an *in silico* platform integrating QSP-PBPK modeling and hiPSC-CM data to predict cardiotoxicity risk of anti-tumor co-medication, conducting simulations to evaluate effects on cardiac function.
- Validated predictions against virtual patients, adjusted for clinical relevance & reliability.
- Guided safer combination therapies and informed clinical cardiotoxicity reduction in patient outcomes.

## PUBLICATIONS

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- **Qian, H.**, Hernandez, I., Yang, L., (2024). Predictors of Discontinuation of Angiotensin Converting Enzyme Inhibitors Use Among Medicare Beneficiaries Using Sodium-Glucose Cotransporter 2 Inhibitors. *Diabetes, Obesity and Metabolism (Under Revision)*.
- Sang, L., Zhou, Z., Luo, S., **Qian, H.**, Zhou, Y., He, H. and Hao, K., 2024. An *in silico* platform to predict cardiotoxicity risk of anti-tumor drug combination with hiPSC-CMs based *in vitro* study. *Pharmaceutical Research*, 41(2), pp.247-262.

## CONFERENCE PRESENTATIONS

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- **2024 American College of Clinical Pharmacy Annual Meeting** **Oct 2024**  
Predictors of Discontinuation of Angiotensin Converting Enzyme Inhibitors Use Among Medicare Beneficiaries Using Sodium-Glucose Cotransporter 2 Inhibitors.
- **2024 Janssen Oncology Intern Research Symposium** **Aug 2024**  
Identifying & Modifying Toxic Events at the ICD-10 Level in JJIM Clinical Studio.
- **2024 UC San Diego Public Health Research Day** **May 2024**  
Solitude's Shadow: The Mental Health Maze in COVID - Effects of Social Isolation During the COVID-19 Pandemic on Mental Health.

## SKILLS

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**Programming** R, SAS, SQL, Python, HTML/CSS, MATLAB, Mathematica, NONMEM  
**Data Viz** Tableau, ggplot2, RShiny, matplotlib, GraphPad, PowerBI  
**Data Tools** AWS, PostgreSQL, Pandas, Scipy, Numpy, PyTorch, TensorFlow, JSON API  
**Software** Monolix, PK-Sim, SnapGene, MEGA, BLAST, PyMOL, ImageJ, Berkeley Madonna

## AWARDS & SCHOLARSHIPS

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**Graduate Travel Grant**, Graduate & Professional Student Association, UC San Diego **Jul 2024**  
**GenScript Life Sciences Fellowship**, GenScript Biotech & China Pharmaceutical University **Jun 2023**  
**1<sup>st</sup> Prize**, Scholarship of Exploring World, China Pharmaceutical University **Jun 2022**  
**Gold Medal**, International Genetically Engineered Machine (iGEM) **Nov 2021**  
**Best Target Molecule Award**, International Directed Evolution Competition (iDEC) **Oct 2021**  
**3<sup>rd</sup> Prize**, China Undergraduate Mathematical Contest in Modeling (CUMCM) **Oct 2021**  
**Meritorious**, Mathematical/Interdisciplinary Contest in Modeling (MCM/ICM), COMAP **May 2021**

## EXTRA-CURRICULUM CERTIFICATES

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**Drug Discovery, Development, & Regulation**, 2024 UCSF-Stanford CERSI **Nov 2024**  
**HIPAA Research Privacy & Good Clinical Practice**, CITI Program **Feb 2024**  
**Statistical Reasoning and Algorithms in Pharmacovigilance**, Uppsala Monitoring Center **Jul 2022**  
**Principles of Clinical Pharmacology**, National Institutes of Health **Jul 2021**

## ACTIVITIES

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**Member**, American College of Clinical Pharmacy (ACCP) **Jun 2024 – Present**  
Engaging in academic social activities and Health Outcomes Practice and Research Network (PRN) member.

**Member**, American Statistical Association (ASA) San Diego Chapter **Sept 2023 – Present**  
Extensively and intensively involved in and communicated with the statistical community in San Diego, CA.

**Member**, WikiProject Olympics **Aug 2021 – Present**  
Up-to-date editions of Olympics-topic articles in both Chinese and English Wikipedian communities.