

HONGJIE (HARRY) QIAN

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EDUCATION

Master of Science in Biostatistics University of California San Diego, La Jolla, CA	Sept 2023 - Jun 2025 GPA: 4.00/4.00
Bachelor of Science (Hons) in Biochemistry and Pharmacology University of Strathclyde, Glasgow, Scotland	Sept 2019 - Jun 2023 GPA: 3.78/4.00
Bachelor of Science in Pharmacy China Pharmaceutical University, Nanjing, PR China	Sept 2019 - Jun 2023 GPA: 3.72/4.00

RESEARCH EXPERIENCE

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 AFib patients.
- Defined drug exposure based on a 30-day hazard period, using conditional Logistic regression for analysis.
- Our potential results aim to address evidence gaps in drug safety related to drug-drug interaction (DDI), enhancing AFib management strategies through real-world data (RWD) insights.

ICD-10 Code Disease Severity Modeling Jun 2024 - Present
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) for on-market drugs for drug safety monitoring and regulatory compliance.
- Used EHRs and claims data in various therapeutic areas to determine clinical trial cohorts by ICD-10 codes, understanding disease progression and patient outcomes, and promoting DEI in clinical trials.
- Validated our reference set of severe disease indicators with RWD and identified impacts of social determinants on clinical trial site selection with explainable AI models.

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 2 million 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.
- Cast light on 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.
- Ensured reliability and clinical relevance by validating *in silico* predictions against virtual patients and adjusting parameters to reflect physiological variability.
- Guided safer combination therapies and informed clinical cardiotoxicity reduction in patient outcomes.

Oxygen/glucose-deprived Astrocyte Mitochondria Imaging Analysis Apr 2022 - Aug 2023
Research Assistant. Supervised by Dr. Susan Chalmers, Strathclyde Inst' of Pharmacy & Biomedical Sciences

- Utilized ImageJ with Mitochondria Analyzer & KymoAnalyzer plugins to analyze astrocyte mitochondria's shape, size, and localization under oxygen/glucose deprivation conditions.
- Conducted two-way ANOVA and principal component analysis for the acquired live time-lapse images.

- Provided insights into astrocyte mitochondria patterns in ischaemic stroke.

PUBLICATIONS

- **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. (*Manuscript in preparation*)
- 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

- **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

Programming R, SAS, SQL, Python, HTML/CSS, MATLAB, Mathematica, Berkeley Madonna
Software Tableau, GraphPad, Monolix, PK-Sim, SnapGene, MEGA, BLAST, PyMOL, ImageJ
Laboratory PCR, Transfection, SDS-PAGE, HPLC, Mass Spectrometry, Immunostaining, Western Blot

AWARDS & SCHOLARSHIPS

Graduate Travel Grant, Graduate & Professional Student Association, UC San Diego **Jul 2024**
GenScript Life Sciences Fellowship, GenScript Biotech & China Pharmaceutical University **Jun 2023**
1st 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**
3rd Prize, China Undergraduate Mathematical Contest in Modeling (CUMCM) **Oct 2021**
Meritorious, Mathematical/Interdisciplinary Contest in Modeling (MCM/ICM), COMAP **May 2021**

EXTRA-CURRICULUM CERTIFICATES

Drug Discovery, Development, & Regulation, 2024 UCSF-Stanford CERSI **Nov 2024**
Non-compartmental Analysis Using Open Source R, Project Dontabhaktuni **Nov 2023**
Monolix - Non-compartmental Analysis, Bio-equivalence and Beyond, Simulations Plus **Jul 2023**
Statistical Reasoning and Algorithms in Pharmacovigilance, Uppsala Monitoring Center **Jul 2022**
Principles of Clinical Pharmacology, National Institutes of Health **Jul 2021**

ACTIVITIES

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.

Head, Department of Sino-UK Student Affairs, China Pharmaceutical University **Sept 2019 – Jun 2022**
 Aided communication between students and teachers in the CPU Sino-UK specialty.