

QINGZE GU

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Big Data Institute, University of Oxford, OX3 7LF

Profile

- Interdisciplinary background in clinical epidemiology, pharmacology and pharmaceutical engineering.
- Skilled in data cleaning and manipulation of large-scale, multi-dimensional electronic health records data.
- Capable of using a variety of data visualisation and reporting tools to uncover potential key insights from the data.
- Extensive experience in regression modelling of time series and longitudinal healthcare data.

Education

University of Oxford

Doctor of Philosophy in Clinical Medicine (Biomedical Data Science)

UK

Oct. 2020 – Present

University of Oxford

Master of Science in Pharmacology; Grade: Distinction

UK

Oct. 2019 – Sep. 2020

Instituto Superior Técnico

Undergraduate Exchange Program; Biological Engineering

Portugal

Sep. 2018 – Feb. 2019

Harbin Institute of Technology

Bachelor of Engineering in Pharmaceuticals and Food; 88/100 (Ranking 2/23)

China

Sep. 2015 – July. 2019

Research

Investigating “Normal” Response to Antibiotics for Sepsis

Jan. 2022 – Present

Graduate Student Researcher

University of Oxford

- Estimated trajectories of physiological measurements following negative/positive blood cultures of different organisms.
- Identified latent classes of response patterns in different patient subgroups.
- Defined centile reference charts of expected response and explored its association with antibiotic administration.

Assessing and Optimising Vancomycin Dosing Guidelines

Oct. 2020 – Dec. 2021

Graduate Student Researcher

University of Oxford

- Evaluated the effectiveness of an antimicrobial guideline for vancomycin prescribing in Oxford University Hospitals.
- Identified factors associated with guideline compliance and drug levels
- Refined antimicrobial dosing recommendations using routinely collected electronic healthcare record data.
- Examined the impact of the optimised guideline using simulations based on population pharmacokinetic models.

Antibiotic PK/PD Parameters in Obesity and Critical Illness

Jun. 2020 – Aug. 2020

Graduate Student Researcher

University of Oxford

- Reviewed the literature on pharmacological indices in antibiotic therapy.
- Summarised studies on antibiotic PK/PD parameters and effective dosing in obese and critically ill patients.
- Completed a literature-based dissertation and was assessed as Distinction.

Effect of Floxuridine on Lifespan and Tumors Suppression

Mar. 2018 – Sep. 2018

Undergraduate Student Researcher

Harbin Institute of Technology

- Studied animal models commonly used in ageing research and maintenance techniques of *C. elegans*.
- Practised laboratory techniques regarding RT-PCR and qPCR analysis.
- Investigated the effect of Floxuridine on lifespan, uterine tumor and aging-related pathological features in *C. elegans*.

Skills

Languages: R (tidyverse, data.table, lme4, lmm, gamlss), Python

Research Skills: Data Visualisation, Medical Statistics, Academic Writing

Publications and Academic Activities

Gu Qingze, et al. Assessment of an institutional guideline for vancomycin dosing and identification of predictive factors associated with dose and drug trough levels. *Journal of Infection*. 2022. Doi: 10.1016/j.jinf.2022.06.029.

Poster Presentation. What is a “normal” C-reactive protein response to sepsis? An electronic health records study. 33rd European Congress of Clinical Microbiology and Infectious Diseases. Copenhagen, Denmark. April 2023

Poster Presentation. Investigating “normal” response to antibiotics for sepsis using physiological measurements. Medical Research Foundation National PhD Training Programme in AMR Research. Bristol, UK. August 2022