

# MPhil in Biomed. by 2022







as latest degree awarded by the Chinese University of Hong Kong Translational research: My mission is to bridge the knowledge gap between basic science and clinic, and I do so with data-driven methods focusing on causal inference.

My current interest is to study the individual treatment effects in clinical trials and causal discoveries of cancer risk genes and prognosis.

## RESEARCH EXPERIENCE

From Aug 2020 to present

Master's thesis research - Prof. HC So

Topics: cancer drug treatment effects & heterogeneity, censored survival analysis, RNA-Seq data causal inference

Chinese University of Hong Kong, HK

From Jun 2019 to May 2020 **Bachelor's thesis research** - Prof. HC So

2020 Thesis: Personalized cancer survival marker predictive causal forest using observational data Chinese University of Hong Kong, HK

From Jun 2018 to Aug & Dec 2018 Summer research attachment - Prof. Vivian Lui

2018 Head and neck squamous cell carcinoma immune infiltration estimation & prognosis Chinese University of Hong Kong, HK

From Jun 2016 to July 2016 Summer Undergraduate Biomedical Research Attachment (SUBRA) - Prof. HC So

MR analysis on cardiovascular disease with GWAS and proteomics data, and drug repositioning for Major Depressive Disorder (MDD) and Anxiety Chinese University of Hong Kong, HK

#### **EDUCATION**

2015

2016

From Aug 2020 to present

MPhil Biomedical Sciences
Chinese University of Hong Kong, HK

From Sep 2016 to Jun 2020

BSc Biomedical Sciences
Chinese University of Hong Kong, HK

From Sep 2014 to Jun 2015

BSc Pharmacology (transferred)
University of Manchester, UK

### **ACTIVITIES AND AWARDS**

2019	Merit Award	Prof Charles K. Kao Student Cre-
		ativity Competition
2019	Third Prize	Hong Kong University Student
		Innovation and Entrepreneurship
		Competition
2016	First runner up &	SUBRA research presentation
	Best poster	·
2016	Academic Officer	Biomedical Science student so-
		ciety
2016	Master's list	Morningside College, CUHK

## **PUBLICATION**

Care, IF: 19.1

3/2020 Exploring diseases/traits and blood proteins causally related to expression of ACE2, the putative receptor of SARS-CoV-2 Diabetes

Shitao Rao, Alexandria Lau (co-first author) and Hon-Cheong So

11/2020 **Turning genome-wide association study findings into opportunities for drug repositioning** Computational and Structural Biotechnology Journal, **IF: 7.2** 

Alexandria Lau and Hon-Cheong So

9/2020 Translating GWAS findings into therapies for depression and anxiety disorders: gene-set analyses reveal enrichment of psychiatric drug classes and implications for drug repositioning Psychological Medicine, IF: 5.8

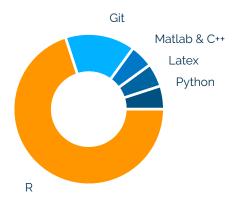
Hon-Cheong So, Carlos Kwan-Long Chau, Alexandria Lau, Sze-Yung Wong and Kai Zhao

5/2020 MAPK pathway mutations in head and neck cancer affect immune microenvironments and ErbB3 signaling Life Science Alliance, IF: 4.0 HL Ngan, YC Liu, ..., Alexandria Lau, ..., Vivian Wai Yan Lui

2020

#### **AVERAGE TOOL USAGE**

R is the primary language I use daily, which I taught myself. But I am also comfortable with Python, Matlab, and C++ based-tools. In addition, I always version-control and organize my projects with Git.



### PROFESSIONAL MEMBERSHIP

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Society for Causal Inference

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European Association for Cancer Research

American Society of Clinical Oncology