# Shiyuan Guo

https://guoshiyuan.rbind.io/

360 Pasir Panjang Road. Singapore 118699

## **Professional Experience**

## National University of Singapore (NUS), Department of Anatomy

Research Assistant on Breast cancer Glyco-oncology

Oct 2016 - Present

- Reported to A/Prof. Yip Wai Cheong, George
- Discovered the function and elucidated the mechanism of an acetylglucosaminyltransferase that is responsible in promoting breast cancer cell migration and invasive ability.
- Automated the cutoff searching of immunohistochemistry data analysis using R.
- Guided and trained undergraduate student with their Honours Year Project.
- Managed stock check and procurement of reagents and consumables from vendors.

## National University of Singapore (NUS), Department of Biological Science

Honours Year Project student

Jul 2015 - Apr 2016

- Supervised by Prof.Greg Tucker-Kellogg
- Attempted to modify CRISPR-dCas9 System to achieve transcriptional/epigenetic control.

#### Karolinska Institute, Department of Laboratory Medicine

Research attachment student

Mar 2015 - May 2015

- Supervised by Prof. Qiang Pan-hammarström
- characterised sequences of fusion transcripts of Diffuse large B-cell lymphoma clinical samples.

#### National University of Singapore (NUS), Department of Paediatric

Undergraduate Research Opportunities Programme student

Jan 2014 - Dec 2014

- Supervised by A/Prof. Allen Yeoh Eng Juh
- Assessing the efficacy of Vincristine drug combination on drug-resistant Acute Lymphoblastic Leukemia cells.

### **Education**

### Master in Science by Research

National University of Singapore, Yong Loo Lin School of Medicine

Aug 2017 - Present

- Cumulative Average Point (CAP): 4.5/5.
- Expected graduation on Jun 2019.
- Courses taken:
  - BL5233: Biological data analysis with R

### Bachelor in Science (Honours), Major in Life Science

National University of Singapore, Faculty of Science

Aug 2012 - Jun 2016

- Cumulative Average Point (CAP): 3.72/5
- Completed **University Scholars Programme** (USP), a multidisciplinary academic programme that accepts only 3% of each undergraduate cohort. Course taken:
  - UWC2101 Writing and Critical Thinking: Interpreting Consumerism
  - USE2315 Participatory Social Development in Southeast Asia
  - USP3501 The Problematic Concept of "Gender"
- Participated Elsinore Summer School jointly hosted by Copenhagen University and National University of Singapore. The summer school consists of an academic retreat with in seminars and journal clubs.
- Participated exchange study in Karolinska Institute. Courses taken:
  - 1BI008 Pharmacology and Toxicology (10ETCs)
  - 1BI007 Neuroscience (10ETCs)

### Singapore-Cambridge GCE Ordinary & Advanced Level

Xinmin Secondary School and Anderson Junior College

Jan 2008 - Dec 2011

- A recipient of Senior Middle School 1 (SM1) Scholarship to support the study.
- GCE O-Level L1R5: 4 points
- GCE A-Level Ranking Points: 83.75/90

#### **Skills**

## Programming language and skills

- R: Proficient in R to handle routine data cleaning (tidyverse package), data visualisation (ggplot2 package) and statistical modelling.
- **Emacs Org mode** and **Rmarkdown**: capable of produce literate programming document (LaTeX article and Beamer) to ensure R workflow reproducibility and readability.

## Natural language

English (full professional proficiency), Mandarin Chinese (native language).

#### Sports

Good at **distance running** and **freestyle swimming** and participated various competitions as a member of NUS Aquathlon Varsity team.

## **TODO Publication**

## **TODO Referee**

Last update: June 24, 2018