

Haotian Tang (Synco)

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EDUCATION

University of Toronto (Honours Bachelor of Science)

Specialist: Pharmacology; Major: Genome Biology; Minor: Mathematics

Toronto, Canada

Sep. 2018 – Apr. 2022

Columbia University (Master of Science) (Currently)

Major: Biostatistics

New York, United States

Expected Study Duration: Sep. 2023 - May. 2025

SUMMER SEMESTER EXPERIENCE

University of Oxford

Summer Abroad Program with one course taken: Developmental Psychobiology

Oxford, U.K.

Aug. – Sep. 2019

National University of Singapore (NUS)

Summer Exchange Program with two courses taken: Field Study in Biodiversity; Bahasa Indonesia

Singapore

Jun – Jul. 2019

PROFESSIONAL EXPERIENCE

Investigating How CYP450- and sEH-associated Pathways Play a Role in Alzheimer's Disease

Toronto, Canada

Research student supervised by Professor Walter Swardfager

Sep. 2021 – Apr. 2022

- Gained insights into lipid metabolism and Alzheimer's Disease and investigated single nucleotide polymorphisms (SNPs) on CYP2C8, CYP2C9, and sEH genes
- Used Alzheimer's Disease Neuroimaging Initiative (ADNI) to acquire phenotypical and behavioral data of patients, including MRI and PET images, genetics, cognitive tests, and levels of blood biomarkers
- Analyzed the potential relationship between different phenotypical data and genes involved in lipid metabolism
- Completed an integrated lab report and demonstrated it with a poster presentation to all students, professors, and faculty members at the Department of Pharmacology and Toxicology

Investigating the Mechanism of Antibiotics in vivo and the Development of SARS-COV-2 Vaccines

Online

Research student supervised by Associate Professor Gerwald Jogl

Sep. 2021 – Oct. 2021

- Conducted a literature review about the development of existing antibiotics and vaccines
- Attended workshops discussing the advent of drug resistance and the difficulty of novel vaccine development
- Operated online biological tools to explore the biochemical structure of pathogens and learned to manipulate high-tech techniques (Cryoelectron microscopy)
- Analyzed the mechanism and listed the pros and cons of current SARS-CoV-2 vaccines

Investigating the Interaction of Different Species of Duckweeds and Microbiome

Toronto, Canada

Research (work-study) student supervised by Professor Megan Frederickson

Sep. 2021 – Apr. 2022

- Took duckweed samples from multiple locations in Toronto and cultivated them into a large population
- Tested each species with different microbiome and visualized the interaction between them
- Analyzed the images and identified potential interactions between duckweeds and microbiome
- Categorized test results and conducted data analyses to explore the relative ratio of all interactions

Investigating the Hypertensive and Psychoactive Effect of Caffeine and the Biochemical Mechanism

Toronto, Canada

Research student supervised by Assistant Professor Anita Hamadani

Sep. 2020 – Dec. 2020

- Reviewed literature and helped make the inclusion and exclusion criteria to select the qualified participants
- Joined the lab meeting about the progress and discussed the statistical results
- Used high-tech devices to observe the digestion pathway of caffeine and studied the potential mechanism from the perspective of genes and their expressions
- Presented as a comprehensive lab report to all students and professors of the Department of Pharmacology

Investigating Factors Affecting "the Marshmallow Experiment" and Delayed Gratification

Oxford, U.K.

Summer research student supervised by Professor David Haley

Aug. 2019 – Sep. 2019

- Conducted background research on the Marshmallow Experiment and summarized its experimental procedures and implications
- Participated in lab meetings and discussed potential problems in the experimental design of the Marshmallow Experiment with the supervisor

- Quantified the extent of impact each situation has on the experiment and investigated the proposed correlation between delayed gratification and long-term academic success through graphs and charts
- Presented the study results to all students and professors at the Department of Psychology

Investigating Biodiversity in Forest by Studying the Quantity and Categories of Terrestrial Snails in Tioman Island (Malaysia)

Singapore

Summer research student supervised by Tan Siong Kiat

Jun. 2019 – Jul. 2019

- Conducted background research on the bio-environment of snails and extracted factors affecting snail population size from past literature
- Designed and performed experiments to quantify snails according to their physical habitat
- Collected the dataset and analyzed the relative size through comparisons of graphs and tables in Excel
- Presented the experimental results to all members of the Department of Science

INTERNSHIP EXPERIENCES

Anhui Fengyuan Pharmaceutical Co., Ltd.

Hefei, China

Intern

Jul. 2021 – Aug. 2021

- Studied the specialized research related to drug injection and technical requirements in drug development, production, and supervision
- Manipulated HPLC and the instrument of fiber-optic in situ dissolution testing (FODT) on certain types of drugs
- Conducted hands-on propofol emulsion injection in vitro and learned both pharmacodynamic and pharmacokinetic processes
- Attended the academic meeting and presented a primary lab report to all experts, professionals, and other staff of the corporation

TEACHING EXPERIENCES

NewChannel International Education Group Limited (Part-time)

Hefei, China

Teacher and Lecturer

May. 2021 – Dec. 2021; Oct. 2022 – Jun. 2023

- Taught high school students their subjects of International Advanced Level, Mathematics, Physics, Chemistry, and Biology, and proposed constructive suggestions for students about their choices of undergraduate colleges
- Helped many students receive their dream offer and fulfill their conditions and requirements
- Accommodate students to English speaking vibe and academic environment

Easy Education Center (Part-time)

Toronto, Canada

Instructor and Lecturer

Sep. 2020 – Sep. 2021

- Instructed freshmen with their transition to first-year university academics
- Helped them find appropriate programs and majors based on their academic performance

New Oriental Education & Technology Group (Part-time)

Hefei, China

Teacher and Lecturer

May. 2018 – Aug. 2019

- Taught high school students to improve their English (TOEFL and IELTS)

ACHIEVEMENTS/AWARDS

- **Co-Curricular Record** honored by the University of Toronto to recognize that students are involved in a variety of activities with multiple competencies. Jul. 2022
- **CIE Awards** (\$4000 and \$2200) honored by Center for International Experience, University of Toronto, for students who have excellent academic performance at both the host and exchange universities Feb. 2019
- **2nd Prize** in China High School Biology Olympiad held by the Chinese National Biology Conference Feb. 2016
- **2nd Prize** in World Olympic Mathematics Competition (China) Trials

LANGUAGE SKILLS

- Language Proficiency: Chinese (native); English (fluent); Indonesian (Beginner)

ONLINE SKILLS

- Microsoft Office: Word, Excel, PowerPoint
- Programming language: R, Python
- IBM software: SPSS