ZHAO, CHEN HUI

zhaoguoaiw@gmail.com

EDUCATION & AWARDS

Department of Biomedical Science, College of Medicine, Chang Gung University, Taiwan

- **Total GPA**=3.86/4.0, **Class rank:** 2/76
- **Awards:** Awarded the first in Seminar Presentations Competition, 2021
- **Relevant subjects** (score/100): Pharmacology (90), Biostatistics (93), Cell Biology (93), Molecular Biology (94), Metabolomics (84), Physiology (91), Genetics (91), Biochemistry (90), Advanced Biochemistry (89), Analytical Chemistry (99), Organic Chemistry (100)
- **IELTS overall**: 6.5

EXPERIENCE

Professor Sebastian D. Fugmann, Molecular Immunology Lab, CGU, 2019-2021

- **Project**: Identification of putative vertebrate caspase-1 homologs in *Sea Anemones*
- **Abstract:** Caspases are evolutionarily conserved. We want to identify *sea anemones* caspases that are homologous to the vertebrate caspase-1 family, thus determining the evolutionary relationships between them. First, we needed to confirm and update the predicted gene models for all *Sea Anemones* caspases. To do so, we amplified the putative transcripts by PCR from cDNA, then made sequence alignments.
- **Independent work (mainly molecular cloning):**
  RNA extraction, cDNA preparation, real-time PCR, gel extraction, genetic engineering (subcloning, ligation, transformation, colony PCR, plasmid preparation), sequence alignment
- **Software skills:** SnapGene Viewer, BioRender, NCBI-blast, Echinobase

Professor Jin-Chung Chen, Neuropharmacology Lab, CGU, 2021-ongoing

- **Final year project:** Is leucine-rich repeat kinase 2 (LRRK2) associated with drug addiction?
- **Abstract:** LRRK2 is encoded by *lars2*. *Lars2* mutation would lead to dysfunction of LRRK2. By many results from fundamental research, we predict that dysfunctional LRRK2 may ameliorate drug addiction. Mouse models who possess *lars2* mutation and dysfunctional LRRK2 are going to be established, to evaluate the level of drug addiction.
- **Teamwork:** Integrate data of next generation sequencing by Python, conditioned place preference, mice handling, immunofluorescence, western blot, statistical analysis

Talented Undergraduate Student Training Program (16 weeks), 2021
Beutler Institute, Xiamen University, China

- **Mammalian Genetics and its Applications:**
  1. The content covered from protein, genome to gene expression
  2. A lab practice about genotyping and a final report
  3. A team presentation introducing proximity labeling
  4. A individual presentation introducing protein disorder
- **Advanced Immunology**
  1. The content covered from innate immunity to adaptive immune system
  2. A poster, a critical essay (2000 words), and individual presentation introducing mucosal

immunology
3. Group presentations about various immune diseases
4. A critique that is a summary of a primary research

- **English Writing and Presentation**

Laboratory Courses, CGU

- **Basic biochemical assay techniques:** enzyme-linked immunosorbent assay (ELISA), affinity chromatography, gel filtration, sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE), Braford assay
- **Basic organic chemistry techniques:** column chromatography, recrystallization, distillation, fractionation, ester synthesis, soap making, artificial sweetener synthesis

Dr. Cecilia Koo Botanic Conservation Center, Pingtung, Taiwan (4 weeks), 2019

- **Work**: Plant cultivation, care and conservation; greenhouse management and maintenance

ADDITIONAL SKILLS & INTRESTS

- **Cosmetics**: Skincare products always attract me. I am interested in studying the function of ingredients in cosmetics. Developing safe, natural, and effective skincare products is my dream.
- **Music:** 8-years piano and 4-years electronic key board practicing