YUHAN CHEN   陈昱瀚

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EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY   *Incoming*
- Incoming graduate student at MIT's department of biology.

UNIVERSITY OF CALIFORNIA AT SAN DIEGO   *2020-2024*
- Bachelor of Science- Molecular and Cell Biology + Mathematics
- GPA:3.882; Major GPA: 4.0

RESEARCH EXPERIENCE

LAW LAB (SALK INSTITUTE OF BIOLOGICAL STUDIES):   *2022-2024*
- Conducted research on the RNA Directed DNA Methylation pathway (RdDM), in particular, how protein and sequence factors collaborate with CLSY3 for recruitment of PolIV to target loci.
- Research was presented at UC San Diego's Undergraduate Research Symposium.
- Successfully completed a senior honors thesis under guidance of the lab.

ANTOS LAB (SHANGHAITECH UNIVERSITY):   *2018-2021*
- Studied the phenomenon of epimorphic regeneration using *danio rerio* as animal models.
- Worked on a project to elucidate the connection between the two-pore potassium channel *Kcnk5b* and upregulation of the morphogen *Shh* (Sonic Hedgehog).

CHEN LAB (TONGJI UNIVERSITY):   *Summer 2017*
- Studied Immunology, particularly the activation of Th2 immunity, using Schistosome infections as a model.

POSTERS PRESENTATIONS

Student Research Showcase, May 2024: *A Family of DNA Binding Proteins Control CLSY3-Dependent Sexual-Lineage-Specific DNA Methylation in Plants.,* Yuhan Chen, Guanghui Xu, Julie Law.

AWARDS

The Nick Spitzer Innovation Award   *May 2024*
Awarded for my efforts "investigating an independently formulated hypothesis" as well as my poster presentation at the student research showcase. Entails a five-thousand-dollar scholarship.

LABORATORY TECHNIQUES AND SOFTWARE:

- *Laboratory Techniques:*
  o Molecular Cloning (Restriction Enzyme, Gibson, Gateway, Golden Gate)

- CRISPR/Cas9 Gene Editing
- Immunoprecipitation, Western Blotting
- DNA Extraction, Primer Design, Polymerase Chain Reaction and Gel Electrophoresis
- Methyl Cutting Assay
- RNA Isolation and Extraction from Cells and Tissue, cDNA synthesis, RNA-seq, small RNA-seq, qRT-PCR
- Chromatin Immunoprecipitation (ChIP)
- In Vitro Transcription, In Situ Hybridization
- Zebrafish Embryo Microinjections
- Arabidopsis Management

- *Computational Techniques:*
  - R (DESEQ2, ggplot2)
  - Linux (Homer, STAR, cutadapt…)
  - Python (Seurat, Numpy, Scipy, Pandas)
  - mRNA, smRNA-seq data analysis