

Zhao, Yuya

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EDUCATION

University of California, San Diego, La Jolla, CA

Bachelor of science in Biochemistry and Cell Biology, September 2015 – June 2018

GPA: 3.9/4.0

Magna Cum Laude. College Honors. Major Honors. Provost Honors.

RESEARCH

Subramaniam Lab, Fred Hutchinson Cancer Research Center, WA – Research Technician – July 2018 – Present

Cantor Lab, UC San Diego, CA – Undergraduate Researcher – January 2017 – June 2018

- Lead independent senior honors thesis project studying the role(s) of cell-intrinsic RIAM in B cell-mediated immune responses in mouse model. Results show that RIAM is necessary for B cell trafficking and residence in the marginal zone of the spleen, and RIAM is required for T-independent immune response of B cells. Currently investigating if RIAM loss in B/T cells provides protection against multiple sclerosis-like disease with mouse experimental autoimmune encephalomyelitis (EAE) model.
- Lead project studying the effects of 9EG7 antibody on protection against multiple sclerosis-like disease with mouse experimental autoimmune encephalomyelitis (EAE) model. Results show that treatment with 9EG7 antibody reduces incidence and severity of MS-like disease in mouse EAE model. Currently investigating the effects of 9EG7 antibody treatment on CD25 expression of regulatory T cells during EAE.
- Lead project studying the effects of antibody 9EG7 antibody on activating T cells in cancer immunotherapy and explore its potential applications.
- Assist project studying the effects of hyperthermia on the homing of T cells in cancer immunotherapy in mouse model and find that elevated body temperature helps the homing of T cells.

Golden Lab, UC San Diego, CA – Undergraduate Researcher – April 2017 – January 2018

- Led independent research project to develop a bi-culture system of *Synechococcus elongatus* PCC 7942 and *E. coli* to reduce bio-production cost and microbial contamination. The main focus of this project was to genetically engineer *Synechococcus elongatus* PCC 7942 to produce tagatose via a four-enzyme metabolic pathway.

Farley Lab, UC San Diego, CA – Undergraduate Research Assistant – September 2016 – December 2016

- Assisted project using high-throughput functional genomics approaches to search for enhancers in human genome, and study the effects, activation mechanisms, and modifications of found human enhancers.

Palmer Lab, UC San Diego, CA – Undergraduate Research Assistant – January 2016 – June 2016

- Assisted project screen mouse genome in search of connections between genotypes and psychiatric diseases and mouse behaviors through GWAS.

CONFERENCE PRESENTATIONS

“Loss of RIAM in B cell impairs T-independent immune responses”

- 2018 Student Research Showcase, poster presenter. La Jolla, CA. June 2018.

“SynEco: A Xenobiotics-derived Bi-culture System of *S. elongatus* and *E. coli* for Applications in Bioproduction”

- 2017 iGEM Giant Jamboree. Oral presenter and poster presenter. Boston, MA, November 2017.
- 2017 Third Annual FISP Symposium. Poster presenter. La Jolla, CA. October 2017.
- 2017 Summer Research Conference. Oral presenter. La Jolla, CA. August 2017.

TEACHING AND UNIVERSITY SERVICES

Grader – Department of Chemistry and Biochemistry – February 2017 – Present

- Proctor and grade exams for various chemistry classes, such as General Chemistry and Organic Chemistry.

Undergraduate Instructional Apprentice – Department of Chemistry and Biochemistry – September 2017 – December 2017

- Assisted teaching of Organic Chemistry I. Duties included leading weekly discussion section, writing quizzes, grading exams, holding weekly office hour, and helping with other class logistics.

HONORS AND AWARDS

iGEM 2017, Bronze Medal (International Genetically Engineered Machine Competition) – 2017

Frontiers of Innovation Scholars Program – 2016-2017

- Awarded a \$9,000 grant.

UC Scholars – 2017