

Experience Working Under CTAHR Professors & Science Fair



Abraham Kwan
Moanalua High School
Grade 12

Internship at the University of Hawaii at Manoa

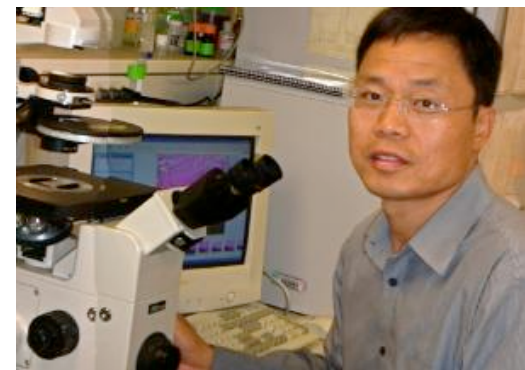
- * Dr. Harry Ako

- * Analyze tuna ovaries as an ingredient in shrimp maturation feed
- * Experimented on preventing denitrification in an aquaponics system



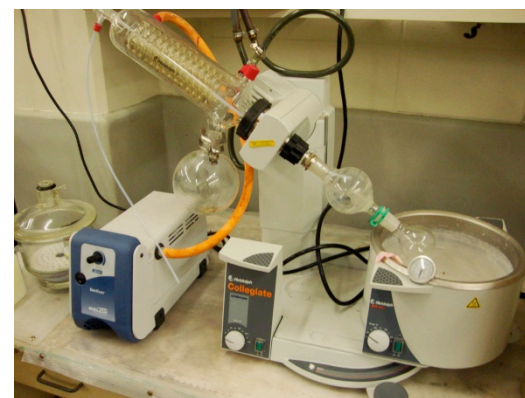
- * Dr. Jinzeng Yang

- * Molecular biology in genes affecting muscle growth



Impact of Tuna Ovaries on Shrimp Maturation Feed

- * Analyzed fatty acid components of tuna ovaries
- * First time working in a college lab
 - * Picked up lab and research skills
 - * Learned how to conduct fatty acid analysis
- * Hawaii State Science Fair
 - * Best in Category: Cellular and Molecular Biology
 - * Selected for the International Science and Engineering Fair (ISEF)



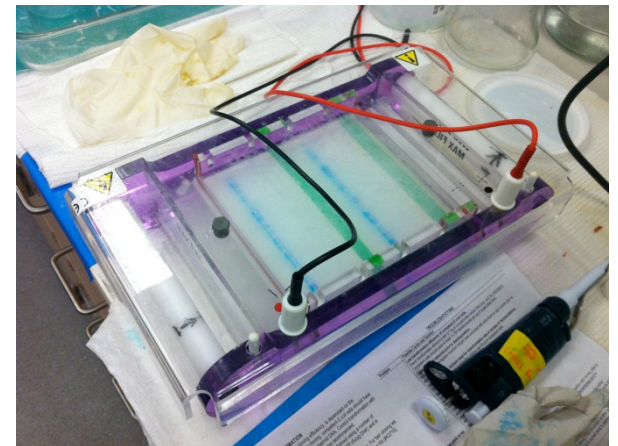
Denitrification Prevention in an Aquaponics System

- * Tested the dissolved oxygen and nitrate level
- * Determine whether aerating the grow trays would prevent denitrification
- * Central Oahu District Science Fair
 - * 1st Place in Chemistry
 - * 3rd Place overall
 - * Qualified for ISEF



Molecular Biology

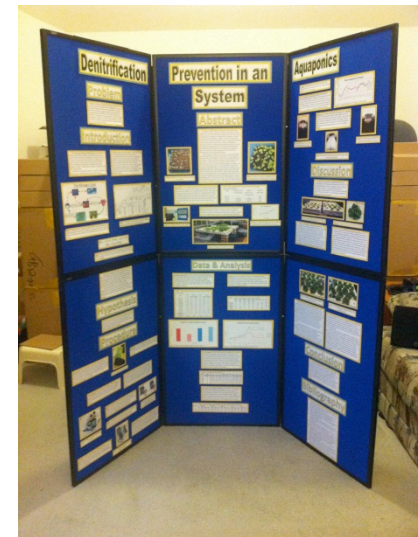
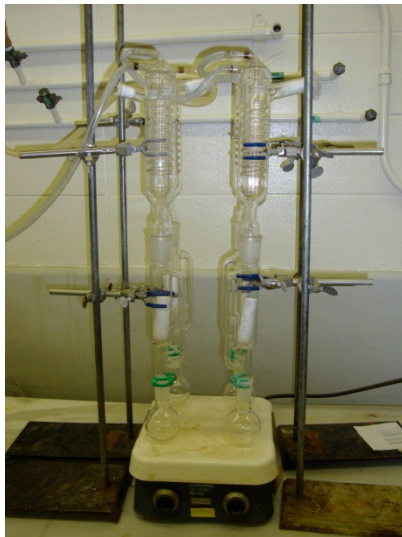
- * Genes affecting muscle growth- In Progress
- * Started some lab training with the PCR and Electrophoresis



Experienced Gained

- * Conduct research in a university lab
- * Learned more advance science than what is provided in high school
- * Apply my learning and make connections to real life
- * Learned how to communicate with adult mentors
- * Communicate research to other scientist

Raised my personal standards overall



Thank you for
listening!