# CALIFORNIA STATE SCIENCE FAIR
# 2016 PROJECT SUMMARY

**Name(s)**
Ruchi P. Agashe

**Project Number**
**J1501**

**Project Title**
## Abundance and Identity of Various Species of Bacteria in Sushi

**Abstract**

**Objectives/Goals**
My project aimed to determine which species of bacteria are present in the fish meat from store-bought sushi.

**Methods/Materials**
I used 3 types of fish meat, salmon, tuna and crab, which are the most common types used in sushi.For the experiment, I plated the bacteria that was found in each different types of fish through centrifuging and pipetting the supernatant onto petri dishes. The colonies of bacteria were isolated according to its morphology, and the DNA was then be sequenced into their nucleotides. (This step was done in a different lab since I was not allowed to perform these procedures) Finally, after knowing the species of bacteria, I was able to research if it is pathogenic or not. Also, when I grew the bacteria on the agar plates, I was be able to identify the different types of morphologies of the bacteria and see which ones are the most common.

**Results**
My data suggested that tuna has the highest total abundance of bacteria and crab has the lowest. The most common species were Leuconostoc gelidum and Pseudomonas fragi.

**Conclusions/Discussion**
All of my trials indicated that tuna significantly has the highest abundance of bacteria and crab has the least. Even though crab had the lowest abundance, it had the greatest number of species of pathogenic bacteria.

**Summary Statement**
In my experiment, I determined the species and abundance of bacteria in each type of fish, figured out whether the bacteria is pathogenic, and discovered the most common morphologies of bacteria in each type fish.

**Help Received**
I performed my experiment in the La Jolla Public Library BioLab with the supervision of Dr. Callen Hyland.