CALIFORNIA SCIENCE & ENGINEERING FAIR
2019 PROJECT SUMMARY

Name(s)

Kylie Rameson

Project Number

J0517

Project Title

How Temperature Affects the Expression of a Jellyfish Glow Gene

Abstract

Objectives

The objective of my study was to determine if temperature had an effect on the amount of light produced by E-Coli bacteria genetically modified to produce Green Florescent Protein.

Methods

I inserted the jellyfish glow gene into E-Coli bacteria and then changed the temperature of the bacteria. I measured the change in light produced with a photometer.

Results

The results of this experiment showed that the more temperature is increased, the more light is produced by the bacteria.

Conclusions

As the temperature increases, the amount of light produced increases. Scientists could use this method to know the temperature of genetically modified organisms without having to touch them. They would only have to measure the amount of light produced.

Summary Statement

I showed that as temperature is increased, the amount of light produced from a genetically modified bacteria also increases.

Help Received

Cary Reich, Laura Ulvaeus