**6. Think about an academic subject that inspires you. Describe how you have furthered this interest inside and/or outside of the classroom.**

I can still recall the day my six-year-old self was given a rather disturbing image of my favorite food: strawberry yoghurt. As a child who grew up learning that bacteria was both living and harmful, the alarming image of trillions of tiny insects swimming within the yoghurt’s pools had been imprinted within my mind. Years later, I understood the benefits of good bacteria and was finally able to consume yoghurt again.

As I sat reading my AP Biology textbook, I had constantly reread the section describing bacteria, which are unicellular organisms lacking a nucleus. However, the mere two pages in that book were not enough to satisfy my curiosity.

My interests in expanding my knowledge within a laboratory context had led to my discovery of the “Introduction to Laboratory Research” summer program at Johns Hopkins University. This course introduced me to the concept of bacterial transformation, which describes a gene transfer process where bacteria take hold of DNA from external environments.

We encounter trillions of bacteria every day, though we’re not always aware of it. With the drastic arrival of Covid-19, I began to view things in a new light and sought to use what I’ve learned about bacterial germs for practical applications. Upon attending a seminar by the Director of Indonesia International Institute for Life Sciences, I gained more insights on skin bacteria and how it can help prevent disease transmission.

This inspired the creation of Eurelia Co, where I formulated natural hygienic products through extensive research to protect my society against harmful bacteria, and educated society on it through an online page. Through my experience volunteering in service trips to other areas of Indonesia, I had witnessed the lack of proper hygienic facilities and products there. I plan to expand into a larger business and gather donations to help local communities.

My fascination with bacteria had driven me from words on a page, to the laboratory, and to my own product creation. It was this experience that it inspired me not be restricted to theoretical knowledge, but also to implement practical applications to benefit my surroundings, which greatly influenced my decision to pursue chemical engineering.