The Very Hungry Caterpillar

*“Here we are, the most clever species ever to have lived. So how is it we can destroy the only planet we have,” - Jane Goodall*

The surfeit of plastic stretching worldwide is beginning to compress the planet, strangling all life beginning with the assailable. If we don’t take more significant measures than “reduce, reuse, and recycle,” then we should start looking for a new planet, but what actually can we do? What if we were to utilize the rapidly arising genetic technology to engineer microorganisms? What if microorganisms, like bacteria, were genetically modified to create plastic-eating microscopic superheroes? What if we were to artificially change part of life, to save all of it?

Manipulating the genetic information of microorganisms is nothing new. Bacteria, being a blob with circular RNA, would suffice, but this gives way to a new question: How will our invention be used? The trash system could use it. After those big green trucks go lumbering away with the trash, it goes to the Transfer Station. Here the trash (black) bin is sorted, then sent to landfills. The garbage includes unwanted plastics. However, the bacteria could be released into the trash at the Transfer Station, eliminating the plastic. Additionally, we could also release it into landfills. With bacteria growing and eating plastics in the landfill, the plastic doesn’t stand a chance.

As wonderful as the invention is, it has many problems. What if it got uncontrollable? In times of war, countries could drop this on enemy territories to sew havoc. Even if someone accidentally dropped it, problems would arise. Nevertheless, every issue has a solution. Genetic engineers could genetically modify the bacteria to be dead in moments upon contact with light. Additionally, we could use the preexisting sensor technology to detect when the bacteria’s populations became too high. In case the bacteria got out of specific parameters, the sensors would raise the alarm.

We all know the problems with plastic pollution. The bacteria won’t solve all of them, but I’m sure this will be a start to a string of inventions that will protect the environment. With these tiny superheroes saving the world, we will be able to clean our planet. In this new, coming world, anything is possible. It is my firm belief that the human race is capable of not only building these microorganisms but building much more to protect our future.