# Aging Butterfly Effect Story 6/11/2020

At 16 years old Tim lived in a middle-class suburb in the UK, he spent his days playing video games and browsing online forums like reddit. He never posted or contributed much of anything, in fact he didn't even have an account on the forums he used for hours a day. Today however, Tim was inspired as can be, and he created an account on his most used forum, reddit. Earlier that day he had read an article about crispr, a revolutionary gene technology that promised to change genetics forever. This had him thinking a lot about the future. He thought of how computers, when his parents were his age, were the size of his room and could store a few Kilobytes of data, and now the device he was holding in his hand was tens of thousands of times more powerful than that. He saw our understanding of DNA taking a similar course, and through that understanding he cried over the fact that in time he may be able to walk again. Because Tim was born with multiple sclerosis, he had been bound to a wheelchair his entire life. When he turned 7 his parents got him a personal computer and he dove into the life of the internet, where not having working legs didn't matter, where he could be like everyone else.

While the escape of the internet world provided him solace when he was at home, school had always been a struggle. He dreamt of playing in the playground with the other kids, of actually looking forward to recess rather than dreading it. That day, Tim decided he was going to dedicate his life to cracking the code of DNA, to understand the language our cells use to work, and figure out what part of his code was messed up, to fix it, and to one day ride a bike with his friend. He started researching, and posted on a forum online sharing his new found perspective and asking for help along his way. After a few hours he excitedly checked his post. It did not do too well however, in fact, it received a couple negative votes. Tim, having had self doubt his entire life, took this hard. He started thinking of the fact that he was bound to a wheelchair and could likely never get a job in a research lab, how he could not even walk, how he was silly to think he could help a field where medical professionals, with working legs, and PHDs spent their lives working on the same thing. He logged back onto his favorite game and drowned out the negative emotions.

The next couple years he often thought of the possibility of his pursuit, but was so overwhelmed with negative self-talk that he never tried. Even with his lack of mobility, and lack of confidence in himself he did enjoy life. He still dreamt of playing basketball or walking to the ice cream parlor down his street, and the lack of ability made him sad, but overall he was grateful to have a loving family, and to be alive at all, especially at an age where he had an entire digital world to escape into. After a few years his muscle weakness had started rapidly declining, and his ability to use a keyboard failed. This really took a toll on his mental health. He lost his connection to the greater part of the world, and as his aches and pains grew, his ability to connect with the outside world became harder and harder. As difficulty speaking became so great, he lacked any communication with the outside world. it became him, pain, and his thoughts. At this point he thought constantly about how he gave up so easily on his dreams of helping cure genetic diseases, how he never did anything to even attempt to help. How he had completely wasted what life he was given, and what abilities he did have. He died that year, with his last thoughts being a wish that he could go back and to have at least tried to make a difference in the world.

Across the Atlantic, a now 22 year old Elizabeth graduated top of her class from UC Berkeley in biomedical technologies. Four years ago while at a loss of her next step in life she saw a post online about someone with multiple sclerosis talking about the possibility of defeating disease and possibly aging in general. At that time in her life, she had no direction and had no clue what she wanted to major in. That day she decided to major in biomed. She wanted to change the world, to cure genetic diseases so many were suffering from. She even saw the possibility of helping those who lost limbs, to understand DNA enough to be able to instruct the cells in a body to regrow the arm just as a lizard regrows its tail. Out of college she accepted a prestigious job at a research lab focusing on paralyzed patients in Orange County, California. Within her first few years she was published in multiple research papers, giving her prestige in the community. Over the next decade her work brought forward a brand new prosthetic arm, it had synthetic nerves and muscle fibers that could function at least somewhat like the original thing. Elizabeth was named on the patent as a 20% shareholder, with the rest going to her parent company. When the technology was purchased by an even larger company for over a billion dollars, Elizabeth became one of the richest females in her field. She was awarded multiple prestigious awards, and was asked to speak at the award ceremonies.

During her speech she talked about how from a young age she had always wanted to help paralyzed people. That it must have been what she was born to do. She explained her original idea of using genetics to regrow limbs and how the much better option was through the use of a prosthetic, that changing our code to regrow an arm would simply be too complicated and be messing with something that nature had perfected over millions of years. Elizabeth had largely forgotten about the reddit post that ultimately pushed her to decide her major was biomed. She remembered what she wanted to, that she was born that way, that she always knew this was the path she would lead. She had become so consumed in her field, and took such pride in it, that she let her ego take hold of her perception, she gave ideas and thoughts that reinforced her story as evidence towards her life path. Wanting to live a life of lavous luxury without the thought of a lack of saving millions from chronic pain, she came to believe it was an impossible task that ethically shouldnt be done anyways.

One young man listening to her speech had a sudden realization, an overwhelming culmination of knowledge that came together in a flash of realization. This particular man went by the name of Jay, he had just graduated from college a year ago and landed a cushy 6 figure desk job. What he had believed to be his dream job, he soon came to realize was nothing of the sort. The achievement of this goal, which he felt his entire life had been leading up to, was more of a realization that he largely had no idea what he truly wanted to do with his life. In fact the achievement of his big goal gave him a depressed and nihilistic view on reality itself. He had come to the realization it was his parents dream all along and he had never given much thought past making sure that he lived up to their expectations. He thought of staying within the job, of achieving the highest position in his company, having a mansion in the hills, and an endless supply of beautiful partners. Beautiful inside and out, people he could start a family with. And he saw the achievement of those goals as leaving him at the same place this job had, unfulfilled. So like many others he searched for higher meaning, something to feel truly passionate about doing. He thought of the many problems in the world, the age-old school system which instead of teaching today's children many of the most important skills of adulthood, mainly tests memorizations of answers to questions.. On top of this he thought of the racism, the corrupt politicians and police, co2 emissions, suicide rateson the rise, and cancer. All of which he noted were valuable and great problems to push towards solving, but Jay, having been raised in a highly competitive family, wanted to attack the most impactful goal. IN an essence his goal was to work on the thing that would end the most pain, the most suffering, and the most unwanted deaths. It was simply a question of the best way to do it.

In an overwhelming contemplation of what great problem to face he fell into a state of paralysis by analysis. And so, in distraction from the lack of a goal in life, he would dive into watching youtube videos. On a binge he came across a “This day in tech” video which included a snippet of Elizabeth’s speech. While also growing up with a knack for wanting to prove other people wrong. He took Elizabeth's concerns of genetic engineering as a challenge. In a breakthrough moment he realized that the achievement of this goal meant so much more than an arm and a leg.

That an understanding of our genetic code, of breaking the underlying language of our bodies would mean the eradication of all genetic diseases. That people born with chronic diseases from birth could no longer be a forced path of pain but would add the option of a cure, to live a normal life, That ailments and miseries untold could be eradicated. Even aging itself is eliminated. He thought to himself “Of course, as the most evolved animal, the longest lifespan would not be something nature would strive for. An animal that reproduces once in a thousand years would have significantly less generations and mutations in the same amount of time as the homosapien. Our DNA, The code built within all of us only cares if it's passed on to another host, and so survival and sex are optimized for rather than continued well-being of the same host. Like a car that once drove a certain mileage is deemed useless and no mechanic is paid to fix it. So he decided to use his car, as a journey towards extending the life of the car. Like being given one wish, and utilizing it to get more wishes.

This became the GOAL above all other goals. To defeat the disease that every human suffers from, aging and death. The thing above all others that would end the most pain, the most suffering, and the most unwanted deaths.. This was a way to not only make the record books but be there to experience it. So he thought of the best way to go about this to have the highest chance of completion. He thought of going to school in biomed, and trying to crack the code himself. He thought of accumulating wealth and donating all the funds he made towards an organization with the same goal. Lastly he thought of the power of society and culture, how innovation is shaped by the minds of those in it. How if he spent an entire year spreading this idea and found 1 other person to take it on with him, he would be the best off.

And because he had watched CPG Grey’s Youtube video on thought germs in his binge prior to finding Elizabeth, he knew that the right idea, and emotional piece could reach and be shared to many. He understood that certain information in a person's mind will change the way they live. And that the smallest act or post, that barely changed someone, can lead to the biggest change. That inspiring one person can completely change the world. He thought of the best way to spread the information, to create more sources like himself, who wished for positive change and took action that would create it. So he made a youtube channel to spread positive thinking and take action. Like a germ that once placed in the minds of other humans would ever so slightly alter their perspective of the world, and as a butterfly that flaps its wings and eventually creates a tornado, telling even one person would completely alter their future and therefore alter his future. Like the one post made by Tim, which led to Elizabeth’s decision being influenced, and finally to him hearing about her thoughts and path. Just like the fact that you sharing this with one person could be the difference to you living in a reality where our genetics are understood, where you won’t have to suffer until death and if not you, then a certain amount of others, for every action you take, no matter how small will permanently have affected the future of humanity. The smallest actions can have the biggest effects and The one thing you control in this world, is your actions and your actions are the only difference in the reality you'll continue to exist in. So send out a small ripple, or a tsunami, but point it in a direction that matters. The internet has made information viruses, able to infect most of the world within hours. The ability to share, produce, and pass on information has never been greater. If you think this video’s perspective would be a positive ripple in your future, you can also donate in the link below, where every cent will be used to advertise this video to the rest of the world. To put that into perspective, $100 can reach 25,000 people. But a share button is free. So in essence, be a positive butterfly.

She did, however, remember correctly that her original plan was to cure paralyzed patients through genetic engineering. How she thought of lizards regrowing their tails, and the potential that humans could manage the same thing. And then, she denounced this idea, saying it was crazy, saying the true future was in artificially made replacements for biological parts.