

Growing up in Haiti wasn't always the easiest thing. As a child I saw some things that I wish I hadn't had seen and heard some things that still affect me today. I remember how my body reacted to them but it wasn't until I took Anatomy and Physiology during my college years that I really understood what was going on.

One Sunday morning, I was sitting in the back seat of my mother's car and we were heading to church. It was our Sunday tradition that each of us (my mother, sister and I) says a little prayer during the ride so we could prepare ourselves to enter the church. While my sister was praying, I ignored my mother's advice to bow my head and close my eyes; instead, I kept them on the side of the road. I saw the unexpected. There was a woman on the side of the road. She was killed by gunshot wounds and her dress was drenched in blood. A few people had gathered around her. My sympathetic nervous system reacted immediately. My heart started to beat. I started to breath heavily. The urge to urinate had disappeared and I started to sweat. My eyes were wide open and my pupil dilated as I was in awe.

My body was undergoing a fight of flight response due to the short term stress I was undergoing. The sympathetic division of the Autonomic Nervous System triggered the release of hormones epinephrine and norepinephrine by my adrenal medullae through innervations from sympathetic preganglionic neurons. Epinephrine and Norepinephrine affected my body in many ways, some that I wasn't conscious of. My heart rate and the force of contraction of my heart increased thus increasing pumping output. This way, my body was maximizing the amount of oxygen going to the rest of my body. In addition, the airways to my lungs were dilated and I was breathing harder. My skeletal muscles received more oxygen. My body had decreased the secretion of insulin and digestive enzymes and increased the breakdown of glycogen to

glucose. My blood pressure was higher, and my blood level of glucose and fatty acids increased. More ATP was created, giving me added energy in case I needed to fight or flee.

The body is an amazing machine, built for self survival. Though in my situation, I didn't have the need to fight or run away, our body is always prepared to help us endure the worst of situations.

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The Incredible Journey

My name is Secondary Oocyte. I am a female reproductive sex cell. Depending on what is happening in my life at a particular moment, my name changes according to the culture, tradition and customs of my state - Ovary.

I have just been through the most traumatizing experience of my life. With no prior warning and for no particular reason, I have just been evicted from the house I've lived in since I was a tiny, tiny baby. To add insult to injury I have also been forced to leave Ovary my native country and I am currently standing at the boarder of Uterine Tube negotiating with Fimbria the department of homeland security seeking political asylum for myself and other members of my house for example the granulose cells. This is not easy because even though it has happened to others before me I was not taught how to do it. All I heard from the grapevine was that once I gain entrance into the uterine tube, I should do my best to get a husband who will give me the legal right to be a citizen of the nearby state called Uterus. This is exactly what I am hoping to do otherwise I will just die and never be remembered anymore.

My maiden name is Oogonium because initially I was a tiny stem cell living in my native land the Ovary since the era of embryonic development. I underwent an initiation ceremony called Mitosis which involves cell division and changed into a Primordial oocyte which is a stage in development of an oocyte. I live in a special house called Follicle that grows with me and other members of the household. It is not strange to find people referring to me using the name of my house. For example, they call me Primordial follicle which is the same thing. Like Snow White when she was under a spell, I remained in the primordial stage of development for what seemed like eternity. I grew bigger and was called Primary Follicle. I underwent another initiation period called Meiosis but did not complete it. I stayed in this stage (Primary follicle) until the event called Puberty took place. I continued to grow bigger and my house continued to grow larger, I had one floor called corona radiate and a second one called zona pellucid. I became a became Secondary oocyte and eventually a mature follicle or graafian follicle and that was when I was evicted through the process called ovulation.

My Incredible Journey

Hong Phan

I'm the most ugly one in the ovary, I'm the oldest one, my name is corpus albicans or you can call me by my nick name, scar tissue. I've been sitting for a while, a long time, and to me it seems like forever. I'm old now, I think I will be degenerating very soon. I can't believe myself here alone with no body else wanting to be with me. It's so sad.

I remember when I was young, the ovary used to call me primordial follicle, I have brothers and sisters too you know, I just don't know where they are now. I grew and grew and became primary follicles, I used to have body guards and I give them the name, layers of cell.

I became secondary follicle soon enough and created the little space within myself the follicular fluid. So I became mature follicle, I used to be so big at that point in time, so strong, and so cool. But you know, you just can not stay young and beautiful forever, sometimes life is unfair and you just have to deal with it.

I bursted and release all of my good material, the ovocyte, since the day my ovocyte left me I feel weak and have no energy. I repaired myself, work as hard as I could to heal the wound that hurt me so bad. I became corpus luteum. And now here I am, old, and worn out, I know I don't have much time left in life. So good bye everyone and remember my name, corpus albicans!

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Unsung Hero

Customarily we humans are less likely to appreciate our internal organs unless encountering difficulties. Then we suddenly awake to realize how an overlooked organ fits to the whole and work with diligence to keep us alive.

Liver is one such a heavy organ situated to the right of abdomen inferior to the diaphragm. Of the enormous endeavors the liver performs, secretion of about 1 qt of bile each day is its foremost responsibility. I heavily depend on my liver for my soaring lipid consumption. Had it not been for the bile that emulsifies every time I eat fats, I probably end-up being stout having difficulty of breathing because of the clogged blood vessels – big shout out to my liver.

My hectic life style always put me on-the-go and I found my self skipping meals in different occasions and yet using energy. The unsung hero of my body comes to rescue by breaking down glycogen, stored by this hero when I had the last meal, to maintain my blood glucose level. Stashing energy for rainy days – oh! Livy! million thanks for being energy bank.

Ok! Now I am on break from my breathless life style, having fun with friends sipping on alcohol. That precious organ, however, keeps on working to detoxify the alcohol I am drinking and getting ready to do the same when I am taking acetaminophen for

the morning hang-over. I wish this amazing organ were a human being like me so that I would be able to pay it back...oh now I get it! that what a hero does, providing diligent work expecting nothing in return.

The red blood cells, after seeing their best days, delivering gas, nutrient, and other substances, engulfed and digested by the liver to be eliminated as bilirubin in feces. The same kind of service also delivered to white blood cells and some bacteria. What a considerate funeral service, liver!

This tireless organ of mine does all these things (mentioned above and many more like participating in vitamin D synthesis and metabolism of nutrients) seeking no fan unlike celebrities rather helping us humans like a hero, my hero.

Today on this paper, while anticipating a bonus from my professor, I take quality time to salute you babe! liver. I know I never gave you a break ever since I came to this planet of ours. However you are having my undivided attention and appreciation for the work you did and yet many more to come - I am hoping to live 120 years.

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Bio 205

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Love My Liver

I love my liver because yesterday was my birthday. I love my liver because I went out to dinner last night with my fiancé and some friends. I love my liver because I had two glasses of wine and a rich Italian meal and without my liver, I wouldn't feel well today, and possibly would be too ill to be able to write my "Love My Liver Essay" and take my exam

During the meal and after, my liver was working to maintain normal glucose levels by converting glucose into glycogen and storing fats from my cream sauce. My liver was also hard at work helping to make that cream sauce into ATP for energy and using its cholesterol to make bile salts, and then use them to emulsify and absorb lipids. I also love my liver because after having those glasses of wine, I needed my liver to detoxify my body. My liver helped to store vitamins from my vegetables and synthesize the little Vitamin D I received from the dairy products I had.

So I want to thank my liver for just doing its job. Without the help of my liver, I might have stayed in a food coma and wine stupor and wouldn't have been able to write this essay!