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Testing Lives to Save Lives

Biomedical research through the use of animals among mice and rabbits has impacted me in an indescribably beneficial way: by saving my vision, and quite possibly my life. Animals have been used in medical research since about 500 B.C., and for over 60 years, use of animal models to study the ocular-based Herpes Simplex Virus 1 (HSV-1) have been used to uncover its means of establishment, maintenance, latency, reactivation, and chronic re-infections. Through the use of these models, medicine pushes forward in hopes of preventing infection and reactivation, while improving treatment techniques. Without the bounds broken through animal tests, my case of ocular HSV-1 would have continued to sever my optic nerve, thus disabling the use of my eye and possibly worked back to my brain itself.

Developing in January of 2016, my eye became inflamed at an alarming rate which lead me to a Phoenix John C. Lincoln Emergency Room (occurring after seeing a walk in clinic and specialist the days before), where various scans and tests were done to identify what the inflammation was and the severity of its effects. Unsure of the exact diagnosis (among which was OHSV-1 and Staph), I was given anti-viral, bacterial, and fungal medications to prevent the infection from reaching and injuring my right optic nerve. After abstract diagnosis and treatment, I was sent to a specialist who used more tests, and key trait observations to pinpoint specific diagnosis and treatment options. After which, I received corneal-applied steroids and continued the various medications already given to me. However, even after the infection and inflammation subsided, complications continued. I was directed to an Oculoplastic consultant and surgeon for further testing on tear production, and it was found that my right tear duct had become clogged and scarred. I was later admitted for a surgical repair (Dacryocystorhinostomy) through use of a stent-like tube that would run through the duct. The stent was removed after a 3 month period, and my eye returned to a normal state. Due to the years of Biomedical testing performed on mice and rabbits, I was able to continue my life a year later in near normal condition and receive effective medicine and diagnosis to save me.

The controversial world of animal testing proves its worth in biomedical models that benefit those in need of quick and effective treatment, like myself and others. Rabbits provide excellent models for OHSV-1, as they have a large eye similar structures to humans that allow in depth analysis and treatment options. One of the techniques used on me was developed through key observation data, using a Flourescein Eye Stain Test to check my cornea for abrasions (tested on rabbits to discover its value and improve its effectivity). Meanwhile, Mice prove effective for medication testing on the virus, as they share a 95% similarity of DNA to humans. Tests with

Immunoglobulin (blood transfusion) and Acyclovir (Antiviral), which is a medication I received, were performed on mice to discover their potential as a remedy and potentially develop into a future cure. The surgery I received has found a basis in animals as well. A dog (Vizsla, 10, female) experiencing a similar issue received the surgery and made promising results for ensuring human safety and effectivity. Furthermore, both MRI and CT scans have been developed using animal models. These tests continue today to develop and improve in depth scans and diagnosis abilities that replace ineffective treatments, refine current treatments, and reduce the chances of issues. Because of the strides made from biomedical animal research, testing on models has become less invasive and harmful, and both people and pets are able to receive effective and fast treatment.

During the year of 2016, I received a multitude of treatments that effectively saved me from bodily damages. While OHSV-1 is not entirely understood yet, the biomedical research on animals has revolutionized the way doctors identify and treat it, which effectively saved my vision and brain. Throughout history, Animals have impacted the research of AIDS, Cancer, Asthma, Meningitis, and countless more to both save and redefine millions of lives. Overall, the biomedical testing on animals to develop new treatments and techniques has benefitted not only me, but the entirety of society, and we would face consequences without it.

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