Student name
Grade 8/Required task
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*\*LOW EXEMPLAR*

Animal testing

Have you ever heard about animal testing? Animal testing is also known as “animal experimentation or animal research (in a lab).” It consists of the use of animals “in experiments that seek to control the variables that affect the behavior or biological system under study.” I support animal testing because without it human beings would not have the chance to benefit from medical treatments such as blood transfusions needed after serious injuries or surgeries as well as managements for various types of cancers. Without animal testing, the life-saving procedure of open-heart surgery would not even be possible! “Nearly every Nobel Laureate in Physiology or Medicine since 1901 has relied on animal data and testing for their research.” It is clear that animal testing has helped better and even save the lives of thousands of human beings in this country and worldwide and should be supported by all.

As previously mentioned, animal testing is conducted for the purpose of blood transfusions and biological system under study. In 1667, “a Frenchman (Prosper Denis) transferred the blood of a lamb into a young man” in dire need of help; this transfusion saved his life. In 1907, “the technique of conducting blood transfusions from artery to vein was perfected by Doctor George Crile.” He saved 32 lives of his patients after experimental animal testing. In 1915, a further breakthrough in medicine based on animal testing was discovered when Doctor Richard Weil proved that “citrated blood could be stored for 2 days and still be effective when transfused into guinea-pigs and dogs that had lost blood.” Only a year later in 1916, it was determined that “with certain additives and proper treatment, citrated blood could be stored for 14 days and still be successfully transfused to the human body.” This determination has since saved the lives of thousands of human beings in need of blood transfusions and could not have been possible without animal testing. The incredible results from the animal testing experiments described above proved that the prolonged storage of blood without clotting was in fact, possible, and furthermore “enabled the establishment of blood banks” and also dubbed blood transfusions (safely stored and of sterile, compatible blood constituents) as a “routine” yet life-saving procedure. Its development has a long history and has depended on animal experimentation carried out by many physicians and scientists nationwide. Simply stated, animal testing from the early 20th century has changed the way doctors all over the world practice medicine today. As of 2014, “over 88 million blood donations are made each year – enough to fill 32 Olympic-sized swimming pools.” Can you imagine how many lives might have been lost if it weren’t for 88 million blood donations? Thanks to animal testing, you don’t have to imagine anymore!

       Without animal testing, another huge medical procedure called “open-heart surgery” would not be possible today. According to the U.S-based \*Foundation for Biomedical Research, “animal testing and experimentation has played a vital role in virtually every major medical advance of the last century - for both human and veterinary health.” From antibiotics to blood transfusions, dialysis to organ transplantation, vaccinations to chemotherapy, bypass surgery and joint replacement, etc. practically every present-day protocol for the prevention, treatment, cure and control of disease, pain and suffering is based on knowledge attained through research with lab animals better known as “animal testing.” Thanks to animal testing and scientists who understand the importance of animal testing such as Doctor John Gibbon who specializes in the medical procedure of open-heart surgery, has successfully and miraculously saved the lives of about half a million people each year in the United States alone. The medical advances and procedures described above have now become safe, “standard” and essential life-saving procedures, yet again thanks to decades of animal testing, experimentation and research.

Despite all of the human lives saved from animal testing since the late 19th/early 10th century, one question still remains in many people’s minds today: Is it morally right to use animals for research? The answer is “yes!” While many people question their moral consciousness, thankfully most people believe that “in order to achieve medical progress that will save and improve lives (perhaps millions of lives) limited and strictly regulated animal testing is justified.” This belief is not only reflected in our moral beliefs but also reflected in the law; which allows for animal testing and research to be conducted under specific circumstances, and which also sets out strict regulations on the use and care of the animals being tested. Animal testing is a controversial topic that has continued and will continue to be something society discusses and debates for years to come. However, there must be an understanding that without animal testing and research we can only make very limited progress against diseases like cancer, heart attack, stroke, diabetes, and HIV. It’s worth noting that animal research benefits animals too! According to a recent study by the University of Oxford, “more than half the drugs used by veterinarians to help animals were developed originally for human medicine.”

 As of 2015 it has been stated that **“**Americans are living longer, healthier lives and we owe much of that success to biomedical research,” said by Robert Palazzo, Ph.D., President of the [Federation of American Societies for Experimental Biology](http://opa.faseb.org/) (FASEB). I wholeheartedly agree with Dr. Palazzo; it is undeniable that animal testing/animal-based research has contributed to significant improvement in the length and quality of our lives. I hope you too, agree as well!

\*[Foundation for Biomedical Research](https://owa.new-haven.k12.ct.us/owa/redir.aspx?SURL=cLljtrXitBwinlmR72eJRw3t2y-mu7tF-TjXXc0Ok_S9IhPEUh3TCGgAdAB0AHAAOgAvAC8AdwB3AHcALgBmAGIAcgBlAHMAZQBhAHIAYwBoAC4AbwByAGcALwBhAGIAbwB1AHQALwBwAG8AcwBpAHQAaQBvAG4ALgBoAHQAbQA.&URL=http%3a%2f%2fwww.fbresearch.org%2fabout%2fposition.htm)