

HONORS 306g STUDENT PAPERS

STUDENT **ABSTRACT**
Bill Kennedy **Misconduct: Two Disciplines, too Much Power**

This paper will cover misconduct in the fields of medical Science and Automotive Engineering. There will be four main parts to this paper giving the reader information on both sides. The reader will read about different cases of misconduct and the result of those cases to the person that committed the act of misconduct. The reader will be given the push and pull of modern ideals on this problem and the laws against it. With the information given the reader will be pulled into the argument of who is more ethical challenged by their field medical or engineers.

The reader will be given information that is current, along with a short introduction to a older case of misconduct. The older case will help bring out the idea that misconduct is not a new problem. This will also help the reader to open their eyes to the idea that misconduct is always around and that there is more information than we know. There are a number of sites that were used in this paper. Some of the medical misconduct sites even allow the user to track a doctor that his had a case of misconduct against them. As far as the engineering misconduct there are a number of sights that give the trial information on cases of misconduct.

After reading the information that has been gathered and interpreted the reader should have a view of their own on this problem. The reader will hopefully come out of this paper with a more open look at the ideals of misconduct and who could do such things.

Mayra Lopez **Somatic Gene Therapy: Focus on Cystic Fibrosis**

Gene therapy promises to be an effective and revolutionary form of medical treatment for various incurable and treatable diseases. There are two types of gene therapy: somatic and germline. My paper will focus on somatic gene therapy.

I will discuss the clinical trials and some of the methods that are involved in the treatment of somatic gene therapy. I will also discuss the problems encountered in the attempt to perfection the therapy in order to finally have it be of use to the population. In order to exemplify this, I will focus on the efforts made to treat cystic fibrosis with somatic gene therapy.

I will then discuss the ethical dilemmas that arise from the use and experimentation of gene therapy. This will also be exemplified by quoting various opinions on the matter. I will try to give a balanced presentation of opposing view points in regards to this novel medical treatment. I will also briefly compare it with what also promises to revolutionize treatment, biomedical engineering.

The last part of the paper will state my opinion on the subject as well as a "bringing it all together" segment. I hope that others get informed in order to make decisions and influence how to use the knowledge we are obtaining by the day. Genetics is dominating our society at present time and we must be ready to face its demands.

Shannon Manuelito **Non Human Primate Research**

There are many issues related to the use of nonhuman primates in research. These deal with the relevance of primate research, the treatment of the animals, and the animals' possession of "rights". This paper is not intended to be an answer to these questions but to be a compiling of information to help one formulate an educated opinion on the debate of using nonhuman primates in research. I will also convey the different sides of this debate by using varied sources in date and expertise.

Some of the aspects that will be covered are the history of primate research, standards and regulations of laboratories that participate in such research, current nonhuman primate research and, concerns of those against such research, and statistics. The questions that will be formulated are: What part of animal research is composed of nonhuman primates? What are the laws and regulations regarding nonhuman primate use? What do we gain from nonhuman primate research?

Who will answer these questions? That is up to present and future generations? It is very clear that an answer will not come soon and will not be simple. Taking steps to make consensus is a good thing but very inconceivable right now. I would like to think that "we" will stop "monkeying around" and one day come to a conclusion.

Matt Marple **Ethical dilemmas regarding the production, stockpiling, and use of chemical weapons.**

Over the past eighty-five years, chemical agents have evolved to become one of the most feared and lethal weapons that man has ever devised. Although the production and possession of chemical weapons was banned by the Chemical Weapons Convention in 1993, questions have arisen regarding the effectiveness of this ban and possible future use of chemical weapons. Unfortunately, many governments would find it easy to circumscribe the Chemical Weapons Convention. This paper will attempt to address ethical questions regarding the production, stockpiling, and use of chemical weapons, and analyze the effectiveness of the chemical warfare convention. Although chemical weapons are widely

considered to be an unethical and immoral means of fighting war, mainly due to the disproportionate numbers of civilian casualties that they produce, their effectiveness has guaranteed them a place in military arsenals.

Chemical weapons are unique among weapons of mass destruction for their effects. Biological weapons are fairly unpredictable, and rarely affect all persons in the target area. As such, they mainly function as terror weapons. Nuclear weapons are equally effective against either civilian or military targets, and are capable of destroying virtually any target, regardless of the countermeasures that have been taken. Chemical weapons, on the other hand, are only moderately effective against a modern military force equipped with protective gear. Their use typically ensures that military forces will remain in protective equipment, slowing down their actions but rarely causing a large number of casualties. Against a civilian target, or any civilians that happen to be near a military target, chemical weapons would be devastating. With a modern nerve agent, civilian casualties of near 100 % are likely, with most casualties resulting in death.

In summary, this paper will concentrate on the production, use, and effects of chemical weapons and the surrounding ethical dilemmas. These include the possibilities of accidental release, the disproportionately high civilian casualty rates that are caused by chemical weapons, and the role of deterrence in preventing chemical war.

Carlye Mascorro Euthanasia and Physician Assisted Suicide: Whose life is it, anyway?

The profession of medicine has long condemned euthanasia and physician assisted suicide, and even though the opposition to them has been ratified time and time again in different eras and in diverse societies, ethical and moral concerns have always been present. In Great Britain, efforts to change the law and medical practice going back to over half a century, and in the United States legislation was pursued in various ways as long as 50 years ago to change laws that forbid euthanasia and physician assisted suicide (Keown 1995). Public opinion polls in the United States and worldwide, indicate a growing willingness on the part of both physicians and lay people to see change in the law that forbids euthanasia and physician assisted suicide (Humphry 1986).

Proponents of euthanasia and physician assisted suicide focus on the rights of the patient to make the decision that will end their lives. They see little difference between helping a patient die, whether it is directly or indirectly. Most deaths in this country, they argue are somehow planned, timed, or indirectly assisted: potentially life-prolonging treatments are often withheld or withdrawn (Jamison 1997). Opponents argue that under no circumstances should physicians use their medical skills to effect a patient's death, and that doing so is the same as killing. Opponents argue that, no matter how humane the motivation, helping patients die in this manner ultimately damages all physician-patient relationships, devalues human life, and if legally sanctioned, would have detrimental effects on society and the practice of medicine.

Jason McKinney Freedom Genes

It is now the year 2050 and the United States has decided to finally cure the world of what has been scientifically proven to be a disgrace to the human race, shiftlessness. It is believed to be one of the inherited traits that contributed to pauperism, the tendency to be poor. A sarcastic scenario or a symbolic example of the potential catastrophe which could result from the misuse of eugenics? It is the intention of this paper to show that "answers" to similar questions involving eugenics requires the contemplation of a very intricate pathway of history and science.

For the majority of people the word eugenics probably conjures up images of Hitler and Nazi Germany, through no real fault of their own. Those same people might be shocked if they were told that a new eugenics is once again at the forefront of science and the field of genetics. As a matter of fact those within the United States have a government which provides millions of dollars for continued research in the subject.

If as a society we are going to allow genetics to proceed let it not be under ignorant observation. Let us examine the origin of eugenics and its multiple places in history because this will hopefully allow a thorough and real examination of the current status of eugenic studies and dilemmas which

society will be facing in the very near future.

Allyson Richards To medicate or not to medicate, that is the question

The main topic of this paper concerns the use of stimulant medication in children with Attention-Deficit Hyperactivity Disorder (ADHD). This issue pertains to whether the medication of hyperactive children is being performed in an ethical manner, or if it is being used as a quick-fix to ease the lives of teachers and parents who encounter "problem" children.

In order to offer a comprehensive picture in regards to this issue, the fundamentals of ADHD are presented. Possible causes, both genetic and environmental are investigated, and current clinical trials are discussed. In addition, beneficial medicinal effects, as well as harmful side effects, are presented. In order to offer a full view concerning medication use in ADHD children, both sides of the ADHD controversy are investigated. For instance, the viewpoint holding that stimulant medication is too widespread in treating ADHD children is presented, as well as the stance that such medications are very beneficial if prescribed and monitored in a rigorous manner.

Overall, this paper tackles the serious issue pertaining to whether medication is the answer for children diagnosed with ADHD. By first setting out the basics of the disorder and the various therapies available, this paper follows the winding path leading to whether stimulants are being prescribed in an ethical manner, or if they have taken the role of a panacea for parents and teachers who are frustrated by boisterous children. A personal conclusion in regards to this issue is also presented.

Marijo Wienkers Prozac, is it the miracle drug for kids?

Currently more than 18 million Americans suffer from depression and one out of eight will require some form of treatment for depression in their lifetime. Depression is a serious medical illness capable of disrupting or even ending a person's life by altering their state of mind. Symptoms of depression can vary from person to person. Some of the main symptoms include feelings of guilt, worthlessness, and insecurity, and thoughts of suicide. Many people will experience one or more of these symptoms throughout their lifetime. Physicians report that individuals who experience five or more symptoms of depression that last for more than two weeks should be concerned and seek treatment. There are various treatments available, including; prescription medications, talk therapy, electroconvulsive therapy (also known as "shock" therapy), and lifestyle changes. Among these prescription medications are becoming the most widely used. Prozac (fluoxetine hydrochloride), over all other medications, is the most prescribed antidepressant for adults suffering from depression. Prozac, manufactured by Eli-Lilly, works by correcting the imbalance of transmitters by increasing the brain's own supply of serotonin.

Although Prozac has only been FDA approved for use in adults, physicians are now prescribing it to children in overwhelming numbers. The current rise in prescriptions is raising serious ethical dilemmas. Although some clinical trials have been conducted in the past, we are not aware of the possible detrimental effects that Prozac could have on children. Until the results of current tests have been reported, the use of Prozac among children should be limited.

Ellen Zwank Who Should Own Your Genes?

Today we live in a world of change. Many new technologies have been developed and are being used to benefit everyone, or is this the viewpoint that scientists and pharmaceutical companies want you to perceive? With all of the new technologies today, making good decisions based on good ethical and moral values is becoming extremely important. It is of utmost importance that judgment calls made today are evaluated for the current generations as well as the future generations. This article reviews the importance of regulation of new technologies and evaluating the dilemmas relating to ethical issues that could occur in the future. Right now the United States Patent and Trademark Office (USPTO) are allowing human genes to be patented. Is this ethically or morally right? The patent office has always had restrictions on what is deemed an invention. Do gene patents deviate from traditional patents enough to be viewed as unpatentable? Can a human gene be deemed an invention? Since patents have already been issued on human genes the new concern is dealing with the decisions we have already made. Since we have already opened Pandora's box now we can only try to control the events that are to come.