

## Brigham City/Tooele USU 1350 Spring 2008

### **“In the news” assignment**

You may wonder how biology is relevant to your everyday life. There are news articles almost daily in many publications that deal with biology on some level. Newspapers and magazines try to keep the public informed by publishing this information in a timely manner. Topics can range from articles dealing with health to global warming and almost anything in between. Find a current news article dealing with some aspect of biology. You may select any article that interests you. Your article needs to be one that has been published since January 1, 2008. You may select articles from any legitimate news source. This may include print or on-line newspapers or news magazines. For it to qualify as a news article, for this assignment, it needs to appear in a daily or weekly publication.

Once you select an article you will write two paragraphs. The first paragraph should summarize the article in your own words. The second paragraph should explain why this topic is important enough to the public to have been published.

Your assignment is **due on Monday March 17, 2008**

- The assignment needs to be typed and single spaced. Remember to check your spelling, grammar, punctuation etc.
- Attach a copy of the article that you selected to the back of your assignment.
- Use the format shown below for this assignment

**Worth 15 points**

#### **Format for the assignment**

<p>Your name: USU 1350 Spring 2008 “In the news”</p> <p>News source Author of article Date published Title of article or headline</p> <p>Summary paragraph</p> <p>Importance to public paragraph</p>
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**Here are two examples of assignments that were well done:**

**Summary:**

Two independent research groups have found a way to genetically modify plants, causing them to suck up harmful substances that are found in the environment. One group developed small plants that are related to cabbage and mustard that can clean up soil contaminated with cyclonite. This substance is explosive, highly toxic, and carcinogenic. The other team modified a poplar tree so that it would suck up a number of cancer causing compounds from the ground, air, and water. Poplars are already known to remove harmful substances from the environment, but by splicing a gene that is normally found in rabbit livers, the researchers managed to greatly speed up the process. Despite the researchers' optimism, experts say that rigorous testing must be performed before any plant like this could be released into the wild because they may have some unforeseen consequences.

**Importance to Public:**

This topic is important to the public because of the incredible potential that these altered plants have for cleaning up the environment. Also, if it's possible for these plants to do this, there is always the possibility that other plants could be slightly altered as well. If any of these plants were to become widespread, they might clean up some of the waste lands that we have created. They would also help to prevent groundwater from being contaminated by certain chemicals. While many plants naturally break down harmful chemicals, there are no known plants that break down cyclonite aside from these genetically altered specimens, making them all the more valuable.

**Summary:**

This article talks about an interesting subject that we have actually talked about recently in class. With all of the new things technology can offer, it is now possible to buy DNA sequences of your choice. Apparently, this has been going on for a while, but now it is an updated practice that is faster and less expensive. The cost per base pair has dropped from \$30 to now less than \$1. Those wanting to buy sequences can do it online. Of course error is unacceptable and the correct sequence is checked very carefully. This process has been made possible because now we have the complete human genome. Generally, genetic engineers extract a gene sequence from an organism and then insert it into bacteria. Gene Synthesis is different. Genes can be specified by typing the desired sequence onto a computer and then assembling that gene at the foundry.

**Importance to Public:**

This is an interesting topic for the public because it means a lot of things. It may soon become possible to create artificial life. The cost of this procedure costs a lot less than it used to and some of the public is worried about the easiness of synthesizing. Stony Brook University announced in 2002 that they had synthesized the polio virus. It took them three years to accomplish the task which contained 7,500 bases. Now a sequence that long could be synthesized in a matter of weeks. This raises issues as to the regulation of these institutions that undergo gene syntheses. What if something was synthesized that could be a major threat to human life? Other people are concerned about the possibilities of mistakes. However innovative this technology is, many believe it needs to be regulated to guarantee nothing disastrous results. It could also hold for some major discoveries in science and have many positive consequences as well.